

# EXHIBIT V

**In the Matter Of:**

*In re Pork Antitrust Litigation*

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*HAL SINGER*

*June 24, 2022*

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| 1  | UNITED STATES DISTRICT COURT<br>FOR THE DISTRICT OF MINNESOTA  |        |
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| 3  | Civil Action No. 0:18-cv-01776-JRT-HB  |        |
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| 5  | IN RE:   |        |
| 6  | PORK ANTITRUST LITIGATION,   |        |
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| 11 | DEPOSITION OF<br>HAL SINGER  |        |
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| 15 | Friday, June 24, 2022<br>9:39 a.m. - 6:03 p.m.   |        |
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| 17 | Remote Location<br>Via Zoom Videoconference<br>All Parties Remote  |        |
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| 24 | Stenographically Reported By:<br>Erica Field, FPR  |        |
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|    | 24 VIDEOGRAPHER:<br>Jacob Figueroa   |        |
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| 1      Thereupon,<br>2      the proceedings began at 9:39 a.m.:<br>3                THE VIDEOGRAPHER: We are on the<br>4          record on June 24, 2022, at<br>5          approximately 9:39 a.m. Eastern Time<br>6          for the remote video deposition of Hal<br>7          Singer in the matter of In Re: Pork<br>8          Antitrust Litigation.<br>9                My name is Jacob Figueroa. I'm<br>10         the videographer on behalf of Lexitas.<br>11         All appearances will be noted on<br>12         the stenographic record.<br>13         Will the court reporter please<br>14         swear in the witness.<br>15         Whereupon,<br>16                HAL SINGER,<br>17         having been first duly sworn or affirmed, was<br>18         examined and testified as follows:<br>19                THE WITNESS: I do.<br>20                DIRECT EXAMINATION<br>21         BY MR. COLEMAN:<br>22         Q. Good morning. Can you state your<br>23         name for the record?<br>24         A. Hal Jason Singer.<br>25         Q. And just the first order of   | Page 5 | Page 7 |
| 1         business, we'll mark your expert report of<br>2         Dr. Hal Singer, which is Tab 1, as Exhibit 1.<br>3                (Exhibit 1 was marked for<br>4                 identification.)<br>5         MR. COLEMAN: Jacob, you could<br>6         leave that up, if you want.<br>7                I will direct you around the<br>8         report if we need it or if Dr. Singer<br>9         needs it.<br>10        BY MR. COLEMAN:<br>11        Q. But I will note, Dr. Singer, on<br>12        Page 191 of your report, it looks like you<br>13        list about 50 cases in which you testified as<br>14        an expert since 2012. Is that right?<br>15        A. I haven't counted them, but<br>16        that's -- since 2012, but that sounds like a<br>17        reasonable estimate.<br>18        Q. And it appears that about half of<br>19        those involve antitrust claims. Is that a<br>20        reasonable approximation?<br>21        A. I think that it's more than half.<br>22        I think that the only other area where my<br>23        practice covers is consumer protection, and<br>24        I've done a few there, but certainly not<br>25        half. So I think the vast majority of my | Page 6 | Page 8 |

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| Page 9  | Page 11   |
| <p>1 anticompetitive restraint.</p> <p>2     <b>Q. And to quantify an antitrust</b></p> <p>3 <b>overcharge, the overcharge needs to exist; is</b></p> <p>4 <b>that fair?</b></p> <p>5     A. Yes. I think it's -- it goes</p> <p>6 without saying that if there's no liability</p> <p>7 or no violation, then there is no overcharge.</p> <p>8     <b>Q. In how many cases have you been</b></p> <p>9 <b>asked to opine on antitrust overcharge caused</b></p> <p>10 <b>by conduct challenged under the antitrust</b></p> <p>11 <b>laws?</b></p> <p>12       MR. RISSMAN: Objection. Asked</p> <p>13 and answered.</p> <p>14       A. I don't -- I don't have a count</p> <p>15 for you, but I think that in every antitrust</p> <p>16 matter that I've testified in, there's been</p> <p>17 an allegation of a violation of the -- of the</p> <p>18 antitrust laws, whether they're federal</p> <p>19 antitrust laws or state antitrust laws.</p> <p>20 BY MR. COLEMAN:</p> <p>21       <b>Q. And in all of those cases, were</b></p> <p>22 <b>you asked to opine on the existence and the</b></p> <p>23 <b>amount of an antitrust overcharge?</b></p> <p>24       MR. RISSMAN: Object to form.</p> <p>25       A. Not in every case. In some cases,</p> | <p>1 BY MR. COLEMAN:</p> <p>2     <b>Q. And how many times has that</b></p> <p>3 <b>happened?</b></p> <p>4     A. On a handful of occasions.</p> <p>5     <b>Q. How many times have you declined</b></p> <p>6 <b>to write an expert report because you were</b></p> <p>7 <b>unable to identify or quantify an antitrust</b></p> <p>8 <b>overcharge?</b></p> <p>9     A. Like I said, it wouldn't -- it</p> <p>10 wouldn't get to that. It wouldn't get to me</p> <p>11 being retained and then studying the matter</p> <p>12 more and not being able to do it. I have to</p> <p>13 make that determination on the front end.</p> <p>14       If I -- if I feel that there's a</p> <p>15 plausible methodology that's reliable and it</p> <p>16 is within my toolkit, then I will typically</p> <p>17 accept the case and perform the requisite</p> <p>18 analyses. The times that I've declined cases</p> <p>19 is when I've decided up front that there was</p> <p>20 something -- there was a problem with the</p> <p>21 case.</p> <p>22       <b>Q. And did you do that analysis in</b></p> <p>23 <b>this case prior to your retention?</b></p> <p>24       MR. RISSMAN: I'm going -- I'm</p> <p>25 going to object as it's not asking for</p>                                     |
| Page 10   | Page 12   |
| <p>1 I've been asked to opine only on matters</p> <p>2 relating to liability in which the -- the</p> <p>3 plaintiff has retained a separate expert to</p> <p>4 do damages. I don't know if I'm going to be</p> <p>5 able to cull up examples of that, but in most</p> <p>6 cases, I will grant you that I'm asked to</p> <p>7 examine issues relating to antitrust impact</p> <p>8 and quantifying aggregate damages.</p> <p>9 BY MR. COLEMAN:</p> <p>10      <b>Q. Have you ever declined an</b></p> <p>11 <b>engagement to testify because you were unable</b></p> <p>12 <b>to either identify or quantify an antitrust</b></p> <p>13 <b>overcharge?</b></p> <p>14      MR. RISSMAN: Object to form.</p> <p>15      A. Well, I've declined engagements</p> <p>16 before, but I can't recall accepting</p> <p>17 engagement and then discovering, you know,</p> <p>18 midway through that I couldn't present an</p> <p>19 estimate. I've -- the decision to go or</p> <p>20 no-go has typically occurred at the front end</p> <p>21 of the case.</p> <p>22      If I think that the case doesn't</p> <p>23 conform, you know, to my understanding or my</p> <p>24 practice, I would turn down the case.</p> <p>25</p>                                    | <p>1 an opinion that he's given in this</p> <p>2 case. It's asking for preliminary</p> <p>3 analysis, and I will instruct the</p> <p>4 witness not to answer.</p> <p>5       THE WITNESS: Okay.</p> <p>6 BY MR. COLEMAN:</p> <p>7      <b>Q. So in every case in which you were</b></p> <p>8 <b>retained to quantify an antitrust overcharge,</b></p> <p>9 <b>you were able to apply your expertise to --</b></p> <p>10 <b>to do so, right?</b></p> <p>11      A. Well, I think what you're asking</p> <p>12 is tautological. I -- whenever I accepted a</p> <p>13 matter, I wouldn't have done so unless I</p> <p>14 thought I could apply my expertise. So when</p> <p>15 you see the final product in cases that I</p> <p>16 accepted, it naturally follows that I -- I</p> <p>17 was able to apply my expertise.</p> <p>18      <b>Q. I'm not sure I see the tautology</b></p> <p>19 <b>here, Dr. Singer. I -- it strikes you as</b></p> <p>20 <b>unreasonable that once you've been retained,</b></p> <p>21 <b>dug through the facts, looked at the data,</b></p> <p>22 <b>that you might realize that the facts in the</b></p> <p>23 <b>record lead you to be unable to quantify an</b></p> <p>24 <b>antitrust overcharge?</b></p> <p>25      MR. RISSMAN: Objection. Calls</p> |

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| 1 for hypothetical.<br>2 BY MR. COLEMAN:<br>3 <b>Q. Did that ever happen?</b><br>4         MR. RISSMAN: I am sorry.<br>5         Objection. Calls for<br>6         hypothetical.<br>7         A. When you put it that way, I can --<br>8         I can conceive of that happening in a case.<br>9         But I can't recall that happening in my<br>10       experience; that is, I can't recall finding a<br>11       case where, you know, the data were so<br>12       unreliable, or there was no anticompetitive<br>13       effects such that I -- I felt the need to<br>14       pull out of the case. I can't -- I can't<br>15       recall that happening in my experience.<br>16 BY MR. COLEMAN:<br>17 <b>Q. So when you been retained, you dig</b><br>18 <b>into the data, and in every instance, you</b><br>19 <b>have been able to quantify an antitrust</b><br>20 <b>overcharge if asked to do so; is that right?</b><br>21     A. Well, like I said, you're --<br>22         you're skipping over a very important part,<br>23         which is on the front end, if I make a<br>24         determination that I'm not going to be able<br>25         to -- to assess and quantify damages in a | Page 13<br>1 witness.<br>2             MR. COLEMAN: Well, he's not<br>3         answering the question.<br>4         MR. RISSMAN: Well, you can't<br>5         interrupt him. You asked the same<br>6         question over again, and so he's<br>7         answered it.<br>8 BY MR. COLEMAN:<br>9 <b>Q. The predicate of the question was</b><br>10 <b>upon retention. I didn't ask what you did</b><br>11 <b>before retention.</b><br>12     MR. RISSMAN: Well, don't<br>13         interrupt the witness again.<br>14         MR. COLEMAN: Well, I will do it<br>15         if he -- he needs to listen to the<br>16         questions.<br>17         MR. RISSMAN: If you are going<br>18         to interrupt him, I am going to<br>19         interrupt you, so it is not going to<br>20         work.<br>21 BY MR. COLEMAN:<br>22 <b>Q. Go ahead, Dr. Singer. Please</b><br>23 <b>answer the question.</b><br>24     A. Are you saying that conditional on<br>25         my assessing the case during the initial   |
| 1 reliable way, then I will pull out of the<br>2 case in that moment.<br>3         So I have not had an occasion yet<br>4 where I've made that determination that<br>5 damages would be feasible and reliably<br>6 estimated and then reversed. I haven't done<br>7 that. I will grant you that.<br>8 <b>Q. Yeah. And, again, my question was</b><br>9 <b>upon retention, in every case in which you</b><br>10 <b>have been retained as an expert to quantify</b><br>11 <b>overcharge, you have been able to dig into</b><br>12 <b>the record, apply your expertise and -- and</b><br>13 <b>identify and then quantify an overcharge --</b><br>14 <b>an antitrust overcharge; is that right?</b><br>15     MR. RISSMAN: Object to form.<br>16     A. I heard the question and I think I<br>17 answered it -- I think I answered it just<br>18 fine the last time. I will give you the same<br>19 answer, which is that you're swiping over<br>20 the -- an initial assessment --<br>21         (Simultaneous unreportable<br>22         crosstalk.)<br>23     MR. RISSMAN: Don't interrupt<br>24         the witness.<br>25     No, you're not interrupting the   | Page 14<br>Page 16<br>1 screening process and accepting the matter<br>2 under the belief that I would, in fact, be<br>3 able to -- to offer a reliable estimate of<br>4 damages?<br>5         I have gone forward and completed<br>6 every instance where I have been retained,<br>7 but I just want -- I think that's an<br>8 important element to the question, and I just<br>9 want the record to be clear that I'm not<br>10 going to accept a case if I don't think that<br>11 having studied it, the complaint, and met<br>12 with the -- with the clients, if I don't<br>13 think that there's something available there<br>14 for me to dig into and to apply my skills,<br>15 then I will -- I will pass on the case.<br>16 <b>Q. You understand that -- the Daubert</b><br>17 <b>standard, right?</b><br>18     MR. RISSMAN: Objection. Calls<br>19         for a legal conclusion.<br>20     A. I have an understanding of the<br>21 Daubert standard, yes.<br>22 BY MR. COLEMAN:<br>23 <b>Q. And it's important to you to use</b><br>24 <b>reliable methods and submit economic analysis</b><br>25 <b>that meets the Daubert standard, right?</b> |

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| <p style="text-align: right;">Page 17</p> <p>1 A. Yes.</p> <p>2 Q. You recognize that your opinions<br/>3 as an expert must be based on the facts in<br/>4 the case, right?</p> <p>5 A. Yes.</p> <p>6 Q. And you must account for the facts<br/>7 in the particular industry that you're<br/>8 analyzing, right?</p> <p>9 A. Yes.</p> <p>10 MR. RISSMAN: Object to form.</p> <p>11 A. Yes.</p> <p>12 BY MR. COLEMAN:</p> <p>13 Q. And the opinions that you form<br/>14 must be the product of reliable principals<br/>15 and methods, right?</p> <p>16 A. Yes.</p> <p>17 Q. And in the antitrust context, it's<br/>18 particularly important that expert economic<br/>19 analysis show that claimed damages were, in<br/>20 fact, caused by the unlawful acts of<br/>21 defendants rather than other factors such as<br/>22 unlawful -- such as lawful competition,<br/>23 right?</p> <p>24 MR. RISSMAN: Object to form.</p> <p>25 A. Well, causation is an important</p>  | <p style="text-align: right;">Page 19</p> <p>1 unlawful acts of the defendant and did not<br/>2 result from some other factor such as lawful<br/>3 competition by the defendant.<br/>4 Do you see that?</p> <p>5 A. Yes.</p> <p>6 Q. And you agree with that, right?</p> <p>7 MR. RISSMAN: Objection. Calls<br/>8 for a legal conclusion.</p> <p>9 A. Yeah, that's consistent with what<br/>10 I told you, that it is the burden of the<br/>11 plaintiff, and it's sometimes my burden<br/>12 depending on my assignment.</p> <p>13 But, yes, I will grant you, it's<br/>14 always the burden of the plaintiff to<br/>15 establish causation.</p> <p>16 BY MR. COLEMAN:</p> <p>17 Q. And it's important for antitrust<br/>18 plaintiffs and economic analysis on behalf of<br/>19 antitrust plaintiffs to distinguish lawful<br/>20 from unlawful conduct, right?</p> <p>21 MR. RISSMAN: Object to form.</p> <p>22 A. For -- for plaintiffs to establish<br/>23 it, yes.</p> <p>24 BY MR. COLEMAN:</p> <p>25 Q. And you understand that economic</p>  |
| <p style="text-align: right;">Page 18</p> <p>1 element for plaintiffs. I will grant you<br/>2 that. But it's not always within my domain<br/>3 to -- to assess causation. I have been asked<br/>4 sometimes to estimate damages under the<br/>5 assumption that someone else is going to<br/>6 establish causation.</p> <p>7 MR. COLEMAN: Can you please<br/>8 pull up Tab 6 and mark it as<br/>9 Exhibit 2?</p> <p>10 (Exhibit 2 was marked for<br/>11 identification.)</p> <p>12 THE WITNESS: Okay. I've got<br/>13 Tab 6 here.</p> <p>14 BY MR. COLEMAN:</p> <p>15 Q. And in Tab 6 -- what's been marked<br/>16 as Exhibit 2 is a case captioned Apotex, Inc.<br/>17 v. Cephalon, Inc.</p> <p>18 You're familiar with this case,<br/>19 right?</p> <p>20 A. Yes.</p> <p>21 Q. And if we go to Page 15 of the<br/>22 document, the second paragraph starting<br/>23 "however," states: However, the burden is<br/>24 placed upon the plaintiff to show that the<br/>25 damage claim was, in fact, caused by the</p> | <p style="text-align: right;">Page 20</p> <p>1 analysis that assumes away rational economic<br/>2 behavior by competitors is subject to<br/>3 exclusion under the Daubert standard, right?</p> <p>4 MR. RISSMAN: Objection. That<br/>5 calls for a legal conclusion.</p> <p>6 A. Yeah. I don't think I have an<br/>7 opinion on that.</p> <p>8 BY MR. COLEMAN:</p> <p>9 Q. Go to Page 23 of the document.</p> <p>10 And if we highlight the paragraph that starts<br/>11 with "accordingly."</p> <p>12 Accordingly, because Dr. Singer's<br/>13 calculation two assumes a but-for world for<br/>14 which there is no factual support, which<br/>15 requires assuming away rational economic<br/>16 behavior by competitors and measures damages<br/>17 in excess of Apotex's lost profits,<br/>18 calculation two will be excluded.</p> <p>19 Do you see that?</p> <p>20 A. Yes.</p> <p>21 Q. Did you disagree with the Court's<br/>22 assessment?</p> <p>23 A. No. In fact, during my<br/>24 deposition, I -- they asked me -- defense<br/>25 counsel asked me explicitly if I thought</p> |

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| <p>1 there was an economic basis, and I explained<br/>     2 that plaintiff's counsel had asked me to<br/>     3 calculate damages under an alternative legal<br/>     4 theory in which Apotex, the one generic that<br/>     5 did not go along with the illegal scheme, was<br/>     6 entitled to 100 percent of the ill-gotten<br/>     7 gains of all conspiring generic defendants.<br/>     8 I said during my deposition, there<br/>     9 wasn't an economic basis for that, but<br/>     10 counsel has instructed me as an alternative<br/>     11 damages methodology -- that's why it's<br/>     12 described there as calculation two -- to<br/>     13 estimate the totality of the ill-gotten gains<br/>     14 by the conspiring generic defendants, and I<br/>     15 did so.<br/>     16 And I said so in my report, and I<br/>     17 said so in my deposition. And here, the<br/>     18 judge is saying I'm not going to allow that<br/>     19 calculation in under that legal theory.</p> <p><b>20 Q. So you agree -- you appreciate<br/>     21 that economic analysis that assumes away<br/>     22 rational economic behavior by competitors is<br/>     23 subject to exclusion under the Daubert<br/>     24 standard, right?</b></p> <p>25 MR. RISSMAN: Objection. Calls</p> | <p>Page 21</p> <p>1 with that legal theory go away.<br/>     2 And that's -- that's the only<br/>     3 takeaway that I -- that I have from that. My<br/>     4 other opinion was accepted, and I even got to<br/>     5 testify in front of the jury on that matter.<br/>     6 BY MR. COLEMAN:<br/> <b>7 Q. I'm just reading what the Court<br/>     8 held, and the Court held that your analysis,<br/>     9 calculation two, is excluded because it<br/>     10 assumed away rational economic behavior by<br/>     11 competitors, right?</b><br/>     12 A. I think the plaintiff's theory of<br/>     13 harm -- their alternative legal theory in<br/>     14 which Apotex was entitled to 100 percent of<br/>     15 the ill-gotten gains of the conspiring<br/>     16 generic defendants was rejected, and<br/>     17 accordingly, any damages that were associated<br/>     18 with that alternative legal theory were also<br/>     19 rejected.<br/> <b>20 Q. Do you dispute that an expert<br/>     21 opinion in an antitrust case in order to be<br/>     22 admissible needs to separate lawful from<br/>     23 unlawful conduct?</b><br/>     24 MR. RISSMAN: Objection. Calls<br/>     25 for a legal conclusion. Form.</p>                                  |
| <p>1 for a legal conclusion.<br/>     2 (Reporter clarification.)<br/>     3 THE WITNESS: Yeah. Let me just<br/>     4 hear it back because there was<br/>     5 something that I -- that I disagreed<br/>     6 with.<br/>     7 But let me -- is it okay if I<br/>     8 just hear back the question? Court<br/>     9 reporter, can you read it back to me?<br/>     10 (The previous question was read<br/>     11 back by the court reporter as<br/>     12 follows:<br/>     13 "QUESTION: So you agree -- you<br/>     14 appreciate that economic analysis<br/>     15 that assumes away rational economic<br/>     16 behavior by competitors is subject<br/>     17 to exclusion under the Daubert<br/>     18 standard, right?" )<br/>     19 A. I don't know if that is the<br/>     20 takeaway from this episode. So when you say<br/>     21 I appreciate -- I mean, the wisdom or the<br/>     22 knowledge that I took away from this case --<br/>     23 from this episode was that if plaintiff's<br/>     24 counsel offers a legal theory, that the Court<br/>     25 rejects, then the damages that are associated</p>  | <p>Page 22</p> <p>1 A. I don't think I have an opinion on<br/>     2 the law there. But I can tell you as an<br/>     3 economist that I wanted to isolate the effect<br/>     4 of the anticompetitive conduct when<br/>     5 estimating damages, and I want to control for<br/>     6 all the other factors that could be affecting<br/>     7 prices or wages or whatever I'm trying to<br/>     8 model.<br/>     9 BY MR. COLEMAN:<br/> <b>10 Q. And so you recognize that a<br/>     11 model -- an economic model or economic<br/>     12 analysis that does not adequately isolate<br/>     13 unlawful conduct and distinguish it from<br/>     14 lawful conduct is problematic. It's not good<br/>     15 economics, and it's not reliable?</b><br/>     16 MR. RISSMAN: Object to form.<br/>     17 Hypothetical.<br/>     18 A. I mean, the way that I would put<br/>     19 it in economic parlance is that an economic<br/>     20 model, for example, a regression model, it<br/>     21 failed to control for some key omitted<br/>     22 variable that -- that better explained the<br/>     23 conduct and was well grounded in economic<br/>     24 theory and the facts of the case, that that<br/>     25 model could not be used to isolate the effect</p> |

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| <p>1 of the challenged conduct on prices.</p> <p>2 BY MR. COLEMAN:</p> <p>3     <b>Q. If a business has sound legitimate</b><br/> <b>4 basis for a decision that is grounded and</b><br/> <b>5 legitimate economic purposes, the economic</b><br/> <b>6 model should not treat that as unlawful</b><br/> <b>7 conduct, right?</b></p> <p>8         MR. RISSMAN: Object to form.</p> <p>9         Incomplete hypothetical.</p> <p>10        A. I don't know if I -- if I caught<br/>     11 that one. Maybe -- maybe you could give it<br/>     12 back to me.</p> <p>13 BY MR. COLEMAN:</p> <p>14     <b>Q. If a business has a valid</b><br/> <b>15 legitimate basis for its business decision</b><br/> <b>16 that's being evaluated by an economic model,</b><br/> <b>17 the model should not treat that decision as</b><br/> <b>18 unlawful conduct, right?</b></p> <p>19         MR. RISSMAN: Same objection.</p> <p>20        A. I would say it depends on what<br/>     21 kind of case that we are dealing with. There<br/>     22 is some conduct, as you are aware, that is<br/>     23 per se legal under the antitrust laws, and so<br/>     24 it would not be a valid exercise on behalf of<br/>     25 the plaintiff's or the defendants' expert to</p> | <p>1 conduct might be motivated for procompetitive<br/>     2 reasons needs to be able to account for those<br/>     3 efficiency justifications.</p> <p>4         And a Section 1 case, a per se<br/>     5 violation, I don't think it is the burden of<br/>     6 the expert to try to justify or explain away<br/>     7 the conduct with efficiency bases.</p> <p>8 BY MR. COLEMAN:</p> <p>9     <b>Q. So an antitrust plaintiff does not</b><br/> <b>10 need to exclude an explanation for conduct</b><br/> <b>11 that's grounded in legitimate business</b><br/> <b>12 reasons?</b></p> <p>13        A. I think the question presumes that<br/>     14 we are starting off with conduct that could<br/>     15 be motivated for procompetitive reasons, and<br/>     16 I'm questioning the premise of your question.</p> <p>17         There are many cases, including<br/>     18 this one, in which we're dealing with a<br/>     19 price-fixing conspiracy in which case it is<br/>     20 not the burden of the expert to go looking<br/>     21 for deficiency justifications. It would only<br/>     22 be in a Section 2 case, in a single-firm<br/>     23 monopoly case or single-firm monopsony case<br/>     24 where we would have to distinguish<br/>     25 anticompetitive motivations from</p>                  |
| Page 26   | Page 28  |
| <p>1 go looking for valid -- I'm trying to<br/>     2 paraphrase what you said -- valid efficiency,<br/>     3 justified motivation for engaging the<br/>     4 conduct.</p> <p>5 BY MR. COLEMAN:</p> <p>6     <b>Q. Well, we can use the language of</b><br/> <b>7 the Apotex court, and you understand that the</b><br/> <b>8 Apotex court referred to rational economic</b><br/> <b>9 behavior by competitors.</b></p> <p>10        <b>Do you recall that from what we</b><br/>     11 <b>read?</b></p> <p>12        A. Yes.</p> <p>13        <b>Q. And you understand that concept,</b><br/>     14 <b>right?</b></p> <p>15        A. Yes.</p> <p>16        <b>Q. And an economic model that treats</b><br/>     17 <b>rational economic behavior in the</b><br/>     18 <b>self-interest of a particular firm as</b><br/>     19 <b>unlawful conduct is problematic, right?</b></p> <p>20         MR. RISSMAN: Object to form and<br/>     21 calls for incomplete hypothetical.</p> <p>22        A. Again, I don't think that comes<br/>     23 from the Apotex decision, but I can say,<br/>     24 divorced from the Apotex decision, that an<br/>     25 economic model in a Section 2 case where</p>  | <p>1 procompetitive motivations.</p> <p>2     <b>Q. But you would recognize that it's</b><br/> <b>3 not appropriate to assume collusion from</b><br/> <b>4 behavior that is consistent with rational</b><br/> <b>5 economic self-interest, right?</b></p> <p>6         MR. RISSMAN: Object to form.</p> <p>7        A. I don't know if I have an opinion<br/>     8 about assuming collusion. I have to assume<br/>     9 in certain parts of what I do that the<br/>     10 challenged conduct occurred. But in a<br/>     11 price-fixing case such as this one, as you --<br/>     12 as you have observed in my report, I don't<br/>     13 assume, but instead I make an assessment of<br/>     14 whether the conduct is consistent with the<br/>     15 conspiracy based on qualitative and<br/>     16 quantitative factors.</p> <p>17 BY MR. COLEMAN:</p> <p>18     <b>Q. Did you make an effort in your</b><br/>     19 <b>analysis to rule out lawful explanations for</b><br/>     20 <b>the conduct that you assess in this case?</b></p> <p>21        A. I think so. I think that I have a<br/>     22 section at the end titled "Plus Factors,"<br/>     23 which we wouldn't get to unless the Court<br/>     24 were to determine that we had to go there.<br/>     25 And so -- so the answer to your question is,</p> |

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| <p>1 yes, I do think that I went and tried to<br/>2 inform the plus factors based on the evidence<br/>3 that I reviewed in this record.</p> <p>4 <b>Q. Yeah. We'll get into this in some</b><br/><b>5 more detail.</b></p> <p>6 <b>How many times have you had an</b><br/><b>7 opinion or analysis deemed inadmissible by a</b><br/><b>8 court under the Daubert standard?</b></p> <p>9 A. I have had two exclusions -- two<br/>10 full exclusions under the Daubert standard in<br/>11 my career.</p> <p>12 <b>Q. And what cases were those?</b></p> <p>13 A. Jimmy John's is one, and the other<br/>14 was -- it was the Society of Reproductive --<br/>15 ASRM, I think, is -- was the defendant, and I<br/>16 am -- I forget what the ASRM stood for, but<br/>17 it was Reproductive Society. It involved<br/>18 donor eggs.</p> <p>19 <b>Q. In how many -- Apotex was a case</b><br/><b>20 in which the court ruled a particular</b><br/><b>21 calculation or opinion to be inadmissible</b><br/><b>22 under Daubert, right?</b></p> <p>23 A. Right. Yeah, in that case, I<br/>24 think, I filed, you know, the standard for<br/>25 assessing reverse payments, went up to the</p> | <p>1 <b>Q. Any others come to mind?</b><br/>2 A. Oh, Yes. MacBook -- In Re:<br/>3 MacBook Keyboard case, which is a consumer<br/>4 protection case where the class was certified<br/>5 around my impact model. The judge did not<br/>6 allow an alternative model to come through.<br/>7 That was called a hedonic<br/>8 progression model. And so the only -- the<br/>9 only model that I will be able to show the<br/>10 jury in that case is the conjoint model.</p> <p>11 <b>Q. Did you disagree with any of those</b><br/><b>12 decisions?</b></p> <p>13 A. Oh, yes.<br/>14 You want to tick through one by<br/>15 one?</p> <p>16 <b>Q. Do you disagree with them all?</b><br/>17 A. Oh, I don't know if I -- no, I<br/>18 don't disagree with them all. That's why it<br/>19 would be better, I think, if we -- we tick<br/>20 through them, if you have the time, if you<br/>21 want to know my opinion. You know, very few<br/>22 people ever asked, but I am happy to tell you<br/>23 which ones I agree with and which ones I<br/>24 don't.</p> <p>25 <b>Q. Well, let's just ask this: Do you</b></p>  |
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| <p>1 Supreme Court in the middle of may case and<br/>2 had to go back and refile reports. I think<br/>3 that I filed something on the order of five<br/>4 reports, maybe a thousand pages of testimony,<br/>5 and one calculation got excluded in that<br/>6 case. That is right.</p> <p>7 <b>Q. So I'm also interested in that, in</b><br/><b>8 an instance in which a court excluded part of</b><br/><b>9 your opinion or a particular calculation or a</b><br/><b>10 model.</b></p> <p>11 <b>How many times has that happened?</b></p> <p>12 A. Right. That's happened on a few<br/>13 occasions. Let me see if I can -- you got --<br/>14 you got the major one. I can think of --<br/>15 when I say "major," I mean, the -- I didn't<br/>16 consider to be a major exclusion, but -- but<br/>17 you got the -- the important one in my<br/>18 portfolio.</p> <p>19 I think that -- I have to think<br/>20 back. There was -- okay. Here's one. In<br/>21 the capacitors case, the judge ruled that I<br/>22 could assess qualitative evidence using<br/>23 economic criteria, but that I could not<br/>24 assess it using the DOJ and FTC collaboration<br/>25 guidelines.</p>     | <p>1 <b>acknowledge that you've made errors in your</b><br/><b>2 analysis in any of those cases?</b><br/>3 A. Oh, no. No. Never made an error.</p> <p>4 <b>Q. Throughout your report, you refer</b><br/><b>5 to "Challenged Conduct." Capital C on</b><br/><b>6 "challenged" and capital C on "conduct."</b><br/>7 <b>What exactly was the challenged</b><br/><b>8 conduct in this case?</b></p> <p>9 A. Yeah. So I summarized it in<br/>10 Paragraph 2, and I don't think I can do it<br/>11 better here in realtime, but I -- in broad<br/>12 strokes, the challenged conduct is an alleged<br/>13 price-fixing conspiracy that involved the<br/>14 exchange of competitively sensitive<br/>15 information through Agri Stats that served as<br/>16 an information exchange facilitating device<br/>17 for collusion.</p> <p>18 And so that's -- that's just my<br/>19 on-the-fly summary of what Paragraph 2 says.</p> <p>20 <b>Q. Okay. So there was -- there was a</b><br/><b>21 conspiracy, and a conspiracy involves an</b><br/><b>22 agreement among competitors, right?</b></p> <p>23 A. I think that could be how the law<br/>24 interprets it. I think that economists don't<br/>25 necessarily use the word "agreement" to</p> |

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| 1 explain conspiracies, but that is my<br>2 understanding, that the law considers an<br>3 agreement to be at the heart of a conspiracy.<br><b>4 Q. Was there an agreement here?</b><br>5 A. Well --<br>6 MR. RISSMAN: Object to form.<br>7 A. Yeah, I typically --<br>8 MR. RISSMAN: Calls for a legal<br>9 conclusion.<br>10 (Reporter clarification.)<br>11 MR. RISSMAN: Calls for a legal<br>12 conclusion.<br>13 A. Yeah. In my -- in my price-fixing<br>14 cases, I'm told by counsel that I'm not to<br>15 opine on the existence of an agreement. So I<br>16 don't. What I do instead is I assess<br>17 qualitative and quantitative evidence that is<br>18 consistent with the existence of, but I'm<br>19 not -- I'm not supposed to opine on whether<br>20 or not I believe the agreement exists.<br>21 BY MR. COLEMAN:<br><b>22 Q. Coming back to what you understand</b><br>23 <b>challenged conduct to be, which is a term</b><br>24 <b>that you used throughout your report. You</b><br>25 <b>think it includes a conspiracy among the</b>  | Page 33<br>1 A. Well, when you say "important,"<br>2 I'm answering this, of course, from an<br>3 economic perspective, not from a legal<br>4 perspective, although I do understand the law<br>5 cares about that, too.<br>6 But from an economic perspective,<br>7 I think that the economist, when assessing<br>8 the evidence, both qualitative and<br>9 quantitative, should be on the lookout for<br>10 the possibility that the information they're<br>11 seeing could also be consistent with tacit<br>12 collusion and to rule that out, and I believe<br>13 I've done that here.<br><b>14 Q. You mentioned that the challenged</b><br><b>15 conduct -- coordination among the</b><br><b>16 defendants -- explicit coordination, right?</b><br>17 A. Oh, I'm sorry. I am sorry.<br>18 What's the question? I am sorry. Give it to<br>19 me again.<br><b>20 Q. Well, i just want to -- we need to</b><br><b>21 get through what challenged conduct means.</b><br>22 A. Right.<br><b>23 Q. And I think as a first step, I</b><br><b>24 think we have established that it includes,</b><br><b>25 in your mind, a conspiracy, and there's</b>                                  |
| Page 34<br>1 <b>defendants, right?</b><br>2 A. Yes.<br><b>3 Q. And how do you define</b><br>4 <b>"conspiracy"?</b><br>5 A. Well, I can give you an economic<br>6 definition. I think that I would send you to<br>7 the complaint to see how the plaintiffs have<br>8 defined a conspiracy. But an economic<br>9 definition of conspiracy is the notion that<br>10 the decision making with regard to prices and<br>11 output were done on a coordinated basis<br>12 rather than on -- on a unilateral basis and<br>13 done so explicitly.<br><b>14 Q. What do you mean by "explicitly"?</b><br>15 A. Well, what we are trying to do in<br>16 many of these cases is rule out what an<br>17 economist would call tacit collusion. And so<br>18 it's possible in certain industries, say,<br>19 that are highly concentrated -- I am just<br>20 thinking of a hypothetical industry where<br>21 firms might be able to feel their way to the<br>22 monopoly prices without -- without explicitly<br>23 coordinating.<br><b>24 Q. Why is it important to rule out</b><br>25 <b>tacit coordination?</b> | Page 34<br>1 <b>coordination that was done on an explicit</b><br>2 <b>basis, right?</b><br>3 A. The allegation by plaintiffs is<br>4 that there was a price-fixing conspiracy that<br>5 involved the sharing of competitively<br>6 sensitive information through Agri Stats,<br>7 and, you know, if you go into the complaint,<br>8 they'll talk about how that agreement touched<br>9 many aspects of the conduct of the firms at<br>10 issue and how they were able to achieve a<br>11 reduction in output in a coordinated way.<br>12 But I think that the centerpiece,<br>13 at least as I understand it and the way that<br>14 I've written up my report, is the information<br>15 exchange -- antitrust competitive information<br>16 exchange.<br><b>17 Q. Okay. So there was an agreement</b><br>18 <b>to exchange information through Agri Stats,</b><br>19 <b>right?</b><br>20 A. Well, as alleged in the complaint.<br>21 You know, I'm loathed to tell you that there<br>22 was an agreement. Whenever you ask me today<br>23 about whether there was an agreement, I'm<br>24 going to tell you that it is alleged.<br><b>25 Q. Well, let's come back -- you used</b> |

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| <p>1 "challenged conduct" maybe dozens of times in<br/>2 your report, and I want a definition of what<br/>3 you meant by it.<br/>4 So is your -- your answer is just<br/>5 whatever happened to be in the complaint, or<br/>6 does challenged conduct actually mean<br/>7 something specific to you?<br/>8 A. It means -- it means something --<br/>9 well, I don't know if those are -- it could<br/>10 be both, right. But I give you my best<br/>11 understanding of the challenged conduct in<br/>12 Paragraph 2. And so I can't do any better<br/>13 than that here, and I've tried to paraphrase<br/>14 what's in Paragraph 2.<br/>15 And that's my -- that's my<br/>16 understanding of the challenged conduct.<br/>17 It's a price -- an alleged price-fixing<br/>18 conspiracy.<br/>19 Q. Well, let's step back for a<br/>20 minute.<br/>21 So an agreement, a conspiracy,<br/>22 whatever, an exchange of information, is that<br/>23 a per se violation in and of itself?<br/>24 MR. RISSMAN: Objection. That<br/>25 calls for a legal conclusion.</p>         | <p>1 quantitative methods, yes.<br/>2 Q. Does challenged conduct include<br/>3 increasing -- defendants increasing exports<br/>4 of pork products?<br/>5 A. Well, if you go into the<br/>6 complaint, you will find allegations that the<br/>7 agreement implicated the defendants' decision<br/>8 making with respect to exports, and there<br/>9 were, in fact, in the record episodes of<br/>10 coordination on the decision of how much to<br/>11 export.<br/>12 But I don't consider exporting to<br/>13 be a restraint that is being challenged in<br/>14 the case. In other words, my mandate was to<br/>15 remove the challenged conduct, which I<br/>16 interrupted to mean the centerpiece was this<br/>17 price-fixing conspiracy held together by<br/>18 information exchange.<br/>19 In other words, no one -- no one<br/>20 said, Dr. Singer, I want you to assume that<br/>21 exporting is zero in the but-for world. No<br/>22 one asked me to treat exporting as if it were<br/>23 a restraint.<br/>24 Now, exporting would likely fall<br/>25 in the but-for world as you remove the</p> |
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| <p>1 A. Yeah. I don't think that you want<br/>2 to come to me for that as to how this is<br/>3 going to be adjudicated. I mean, I feel like<br/>4 that's ultimately going to be the Court's<br/>5 decision as to whether or not to apply the<br/>6 per se -- or rule of reason standard.<br/>7 BY MR. COLEMAN:<br/>8 Q. Is -- in your mind, is everything<br/>9 you define as challenged conduct unlawful?<br/>10 MR. RISSMAN: Object to form.<br/>11 And calls for a legal conclusion.<br/>12 A. Right. I don't have any opinions<br/>13 with respect to what -- what is unlawful. I<br/>14 have opinions as to whether or not the<br/>15 conduct was anticompetitive. I can answer<br/>16 that question, but I can't -- I can't go into<br/>17 areas of law.<br/>18 BY MR. COLEMAN:<br/>19 Q. And -- well, answer that question,<br/>20 then.<br/>21 Is all of the challenged conduct<br/>22 anticompetitive in economic terms?<br/>23 A. Oh, I concluded that the<br/>24 challenged conduct was anticompetitive using<br/>25 both my qualitative assessment and my</p> | <p>1 challenged conduct. But I don't consider<br/>2 exporting to be a restraint that I should<br/>3 remove when modeling the but-for world.<br/>4 Q. Yeah. So it -- just so the record<br/>5 is clear, the but-for world is the world in<br/>6 which there was no conspiracy or challenged<br/>7 conduct, right?<br/>8 A. Correct.<br/>9 Q. So in the but-for world, we assume<br/>10 away any unlawful coordination or any<br/>11 challenged conduct, right?<br/>12 A. That's fair.<br/>13 Q. And so at least as to exports, do<br/>14 you have an opinion in that but-for world<br/>15 whether exports would have stayed flat or<br/>16 would have increased?<br/>17 A. So what I've -- what I've<br/>18 quantified is the extent to which domestic<br/>19 production would be -- would have been<br/>20 greater in the but-for world absent the<br/>21 challenged conduct.<br/>22 What I have not done is said where<br/>23 would that come from. Would it necessarily<br/>24 come from exports, or would it be new supply.<br/>25 I haven't -- I haven't -- I haven't said</p>                         |

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| <p>1 that. But I think that my kind of high-level<br/>2 opinion is that exports would be lower in the<br/>3 but-for world but would not be zero.<br/>4 And so, you know, I'm going back<br/>5 and saying something earlier. No one asked<br/>6 me to eliminate exporting in the but-for<br/>7 world and then solve for the price effects.<br/>8 That was not -- that was not my mandate. My<br/>9 mandate was to remove the challenged conduct.</p> <p>10 Q. We'll be able to look at some<br/>11 numbers in a bit.</p> <p>12 But I mean, you understand that<br/>13 exports have increased year over year for<br/>14 pork products for -- you know, going back for<br/>15 decades now, right?</p> <p>16 MR. RISSMAN: Object to form.</p> <p>17 A. That's probably fair, yes. I<br/>18 mean, just as the world economy grows, that<br/>19 would make sense.</p> <p>20 BY MR. COLEMAN:</p> <p>21 Q. So do you have an opinion as to<br/>22 whether the exports in the but-for world<br/>23 would have increased?</p> <p>24 A. Well, relative to the actual<br/>25 world, my opinion is that exports would have</p>   | <p>Page 41</p> <p>1 and liquidation. There are many different<br/>2 mechanisms by which allegedly conspiring<br/>3 firms could reduce domestic output. And I'm<br/>4 also aware in the complaint, and in my<br/>5 report, I've summarized some record evidence<br/>6 that speaks to coordinated conduct with<br/>7 respect to exporting.</p> <p>8 But I think it's a mistake to --<br/>9 to focus on exporting and to treat exporting<br/>10 as a restraint that should be eliminated in<br/>11 the but-for world. I'm just trying to make<br/>12 this -- you said I wasn't being clear. I'm<br/>13 trying to be as clear as possible.</p> <p>14 The restraint is an alleged<br/>15 conspiracy to reduce domestic output and to<br/>16 raise prices. And the way that that was<br/>17 achieved -- the way that that was achieved<br/>18 was through a variety of mechanisms, right,<br/>19 that I detail in my report. And I guess I<br/>20 will leave it as that.</p> <p>21 BY MR. COLEMAN:</p> <p>22 Q. So what was the underlying<br/>23 agreement among defendants? It was to reduce<br/>24 pork -- domestic pork supply? Is that -- is<br/>25 that your testimony?</p> |
| <p>1 been smaller in the but-for world. But if<br/>2 you drew them on a graph, they would be<br/>3 increasing over time, no doubt, even in the<br/>4 but-for world.</p> <p>5 Q. So I want come back to your answer<br/>6 that I'm not -- it's not clear to me, that --<br/>7 you said there was -- we're going back to the<br/>8 challenged conduct and what it was. And I'm<br/>9 trying to explain -- or understand exactly<br/>10 what's included in challenged conduct. And I<br/>11 think we have established that there -- you<br/>12 think there was a conspiracy, or you assume<br/>13 there was a conspiracy, and I want to<br/>14 understand what the conspiracy agreed to do,<br/>15 conspiracy to do what.</p> <p>16 Was there a conspiracy to increase<br/>17 exports of pork products?</p> <p>18 MR. RISSMAN: Object to form.</p> <p>19 And calls for a legal conclusion.</p> <p>20 A. I think the alleged conspiracy<br/>21 involved reducing domestic output and<br/>22 increasing domestic prices. Now, how that<br/>23 manifested itself could occur in many ways.</p> <p>24 You know, I go into my report --<br/>25 talk about harvest reduction and exporting</p> | <p>Page 42</p> <p>1 MR. RISSMAN: Objection. Legal<br/>2 conclusion. Form.</p> <p>3 A. Right. So, again, I can't -- I<br/>4 can't speak to the existence of the<br/>5 agreement, but I can tell you my<br/>6 understanding of the allegations in the<br/>7 complaint was that there was a single<br/>8 agreement among the defendants, with<br/>9 Agri Stats working as the center piece, to<br/>10 reduce domestic pork supply and increase<br/>11 prices.</p> <p>12 BY MR. COLEMAN:</p> <p>13 Q. And the -- you talk quite a bit<br/>14 about cartel, and you review cartel<br/>15 literature, and I think you accuse Agri Stats<br/>16 of doing the work of a cartel here, right?</p> <p>17 A. I -- I think that my opinion is<br/>18 that Agri Stats performed like a textbook<br/>19 cartel, yes -- a cartel ringleader, yes.</p> <p>20 Q. Okay. Are you -- did you form the<br/>21 opinion that a cartel existed here or not?</p> <p>22 MR. RISSMAN: Objection. Calls<br/>23 for a legal conclusion.</p> <p>24 A. I mean, I just told you that I<br/>25 think that Agri Stats was -- was acting like</p>   |

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| 1 a cartel. But I think that my primary<br>2 economic opinion is that the qualitative and<br>3 quantitative evidence is consistent with a<br>4 conspiracy to inflate prices and reduce<br>5 domestic output.<br>6 BY MR. COLEMAN:<br>7 Q. And so, again, the cartel<br>8 agreement here, to the extent one existed,<br>9 was to reduce supply, and the cartel has left<br>10 it to the defendant firms to figure out how<br>11 to do that?<br>12 How does this work in your mind?<br>13 A. No, I don't --<br>14 MR. RISSMAN: Object to form and<br>15 lacks foundation.<br>16 A. My review of the record and the<br>17 qualitative evidence does not -- shows that<br>18 it was not left to defendants to figure it<br>19 out; that there was, in fact, coordination<br>20 with respect to how to figure it out, with<br>21 respect to reducing exporting, for example --<br>22 sorry, increasing exporting so as to reduce<br>23 domestic supply.<br>24 So, I guess, I reject -- I reject<br>25 the question respectfully, but I don't think                       | Page 45<br><br>1 take you there right now in realtime, but I<br>2 think that I do, in fact, point to such<br>3 evidence in the report.<br>4 Q. Well, we can go through -- we'll<br>5 go through it in some detail, but sitting<br>6 here, at this moment, you're not -- you can't<br>7 point to a single document in which two<br>8 defendants were in, quote/unquote, cahoots to<br>9 increase exports?<br>10 MR. RISSMAN: Objection.<br>11 Mischaracterizes testimony.<br>12 A. Sitting here, I don't think I have<br>13 it memorized, but I have two separate<br>14 sections on exports, and I've -- you know,<br>15 I've read them a few times recently, and I<br>16 seem to recall an episode in which two or<br>17 more defendants were coordinating in their<br>18 export decisions.<br>19 BY MR. COLEMAN:<br>20 Q. Which defendants?<br>21 A. Sitting here, I can't say.<br>22 Q. Have you reviewed any data about<br>23 how much pork products any of the defendants<br>24 exported in any particular year?<br>25 A. I believe I have, yes. |
| Page 46<br><br>1 it was just left to the defendants to figure<br>2 it out on their own.<br>3 Q. Okay. So what exactly was the<br>4 coordination to reduce exports?<br>5 MR. RISSMAN: Same objections.<br>6 A. I think that I've reviewed both<br>7 allegations in the complaint and record<br>8 evidence that's in my report under the<br>9 exporting section in which two or more<br>10 defendants were coordinating with respect to<br>11 their export decision making.<br>12 BY MR. COLEMAN:<br>13 Q. And what does "coordination" mean<br>14 in your mind there?<br>15 A. Coordination is distinct from the<br>16 unilateral conduct; that is, they're reaching<br>17 the decision in cahoots or in coordination<br>18 with arrival -- horizontal arrival.<br>19 Q. Can you point to a single document<br>20 that indicates that two defendants that<br>21 were -- were in, quote/unquote, cahoots when<br>22 making their -- a decision to export pork<br>23 products?<br>24 A. Well, I believe I have such<br>25 evidence in my report. I don't know if I can | Page 48<br><br>1 Q. And what data?<br>2 A. Oh, I think -- I think Agri Stats<br>3 kept data on exports, and I also think I've<br>4 seen data on exports that were kept by the<br>5 defendants themselves.<br>6 Q. Okay. So my client is Hormel.<br>7 How much did Hormel export in any particular<br>8 year?<br>9 MR. RISSMAN: Object to form.<br>10 A. Oh, sitting here, I can't tell<br>11 you.<br>12 BY MR. COLEMAN:<br>13 Q. Have you reviewed data showing how<br>14 much pork products Hormel exported?<br>15 A. It's possible I have, yes, or a<br>16 staff member has, yes.<br>17 Q. So are you familiar with the<br>18 concept of direct evidence of a conspiracy or<br>19 agreement?<br>20 MR. RISSMAN: Objection. That<br>21 calls for a legal conclusion.<br>22 A. No. No, I'm not.<br>23 BY MR. COLEMAN:<br>24 Q. Have you reviewed any documents in<br>25 which there was correspondence from one  |

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| 1 defendant to another indicating that they had<br>2 agreed to increase exports?<br>3 MR. RISSMAN: I'm going to<br>4 object on legal conclusion, and I also<br>5 instruct the witness that he should<br>6 only testify as to things he's formed<br>7 an opinion on and not -- merely<br>8 analyzed but had not formed an opinion<br>9 on.<br>10 MR. COLEMAN: And I guess I will<br>11 revise the question.<br>12 BY MR. COLEMAN:<br>13 Q. In response to the -- you think<br>14 that there's evidence in this case indicating<br>15 that two or more defendants were in,<br>16 quote/unquote, cahoots to increase exports.<br>17 And I'm concerned about that.<br>18 It's a serious allegation. If it's true,<br>19 it's a crime. So you're accusing my client<br>20 and other defendants of crimes.<br>21 I want to know exactly what you're<br>22 talking about when you think there's evidence<br>23 in this case showing that two or more<br>24 defendants were in, quote/unquote, cahoots to<br>25 increase exports? | Page 49<br>Page 51<br>1 BY MR. COLEMAN:<br>2 Q. I'm just trying to understand what<br>3 you're talking about.<br>4 A. Sure.<br>5 Q. I looked through the record, and I<br>6 haven't seen it, so help me out here.<br>7 MR. RISSMAN: Objection.<br>8 Argumentative.<br>9 BY MR. COLEMAN:<br>10 Q. Go ahead.<br>11 A. I'm telling you what my memory is<br>12 of the evidence, and I also seem to recall in<br>13 the complaint that there was an allegation<br>14 that the -- that the agreement touched export<br>15 decision making as well.<br>16 I will leave it at that.<br>17 Q. Well, I'm interested in how we<br>18 would go about identifying this document in<br>19 which one defendant is cajoling another one.<br>20 How did that work in your mind?<br>21 A. Okay. Those are two separate<br>22 questions. But how we would go about it,<br>23 which is the first question, is I'd want to<br>24 go back and review the evidence that I put<br>25 forward in my export session.                      |
| Page 50<br>1 MR. RISSMAN: Object to form.<br>2 BY MR. COLEMAN:<br>3 Q. As of -- as of the moment, you're<br>4 not able to identify to a -- a specific<br>5 document, right?<br>6 MR. RISSMAN: Object to form.<br>7 And long narrative. I'm not really<br>8 sure what the question was.<br>9 But if you understood it, Mr. --<br>10 Dr. Singer, you can answer.<br>11 A. My recollection is that there's<br>12 evidence in my report that describes how two<br>13 defendants, either acting directly or via<br>14 Agri Stats, were coordinating and sharing<br>15 information or cajoling one another with<br>16 respect to decision making over exports.<br>17 BY MR. COLEMAN:<br>18 Q. And so that's how we would<br>19 identify that -- that evidence that you have<br>20 in mind, is that one defendant is,<br>21 quote/unquote, cajoling another defendant to<br>22 increase exports?<br>23 MR. RISSMAN: Objection.<br>24 Mischaracterizes the testimony.<br>25 MR. COLEMAN: I'm not.                                 | Page 50<br>Page 52<br>1 I have two sections on exports,<br>2 and I seem to recall at least one paragraph<br>3 in which two or more defendants were involved<br>4 in the communication that concerned the<br>5 decision making around exporting.<br>6 Q. Okay. So when we come back to<br>7 challenged conduct -- challenged conduct, it<br>8 includes a conspiracy. There was a<br>9 conspir -- an agreement, conspiracy, whatever<br>10 you want to call it, to participate in<br>11 Agri Stats, right?<br>12 MR. RISSMAN: Object to form.<br>13 And mischaracterizes testimony in the<br>14 report.<br>15 BY MR. COLEMAN:<br>16 Q. Yeah. If I mischaracterize your<br>17 testimony, go ahead and correct me. I'm just<br>18 trying to understand what you mean by<br>19 "challenged conduct."<br>20 A. Sure.<br>21 MR. RISSMAN: Objection. Asked<br>22 and answered.<br>23 A. Sure. The challenged conduct as<br>24 described in Paragraph 2 is an alleged<br>25 agreement among defendants to reduce domestic |

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| 1 pork supply, increase prices through the use<br>2 of an information exchange provided by<br>3 Agri Stats.<br>4 BY MR. COLEMAN:<br><b>5 Q. Okay. So the conspiracy is not</b><br>6 just to -- in your mind, it's not just to<br>7 exchange information through Agri Stats, but<br>8 it is also to reduce the domestic supply of<br>9 pork?<br>10 A. I think that the conspiracy as<br>11 alleged here was designed to reduce the<br>12 domestic supply of pork and to increase<br>13 domestic prices.<br>14 Q. Yeah. And was there a conspiracy<br>15 to increase exports?<br>16 MR. RISSMAN: Objection. Form.<br>17 A. Yeah, I'm -- I don't offer an<br>18 opinion on the existence of a conspiracy or<br>19 the existence of an agreement. All I can<br>20 tell you, in my economic opinion, is that my<br>21 review of the qualitative factors according<br>22 to the criteria that economists use to<br>23 ascertain cartel behavior as well as the<br>24 quantitative evidence, the method I used to<br>25 assess price and output effects is all      | Page 53<br>Page 55<br>1 increasing exports, in quotes, that phrase,<br>2 in Paragraph 2 when I complain the challenged<br>3 conduct. I've now -- I think I've defined it<br>4 for you about five times, and it's -- you<br>5 know, Paragraph 2 is the best I can do.<br>6 But, again, I will say that<br>7 increasing exports is an aspect or an element<br>8 that flowed from the challenged conduct.<br>9 That is the mechanism -- is one of the<br>10 mechanisms by which the defendants allegedly<br>11 were able to reduce domestic pork supply.<br><b>12 Q. And so again -- are you not able</b><br>13 to give me a yes-or-no answer as to whether<br>14 increased exports fits your definition of<br>15 challenged conduct?<br>16 MR. RISSMAN: Object to form.<br>17 And asked and answered.<br>18 A. That's correct. I can't --<br>19 MR. COLEMAN: I wish it had been<br>20 answered.<br>21 BY MR. COLEMAN:<br><b>22 Q. Is that a -- that's not subject to</b><br>23 a yes-or-no question?<br>24 A. I guess there's --<br>25 MR. RISSMAN: Same objection.   |
| Page 54<br>1 pointing in the direction and consistent with<br>2 the existence of an agreement and the<br>3 existence of a conspiracy.<br>4 And that's as far as I can go.<br>5 BY MR. COLEMAN:<br><b>6 Q. Did that include the conspiracy to</b><br>7 <b>increase exports?</b><br>8 MR. RISSMAN: Object to form.<br>9 A. I think that in the complaint,<br>10 there's an allegation that the conspiracy<br>11 reached decision making with respect to<br>12 exporting. But I wouldn't consider that<br>13 aspect to be a standalone agreement. There<br>14 are many ways in which output -- domestic<br>15 output can be reduced. I go through the<br>16 different ways in my report.<br>17 And I think the best way to<br>18 explain and to understand the challenged<br>19 conduct is a single agreement to reduce<br>20 domestic supply and raise domestic prices.<br>21 BY MR. COLEMAN:<br><b>22 Q. Is increase in exports part of the</b><br>23 <b>challenged conduct?</b><br>24 MR. RISSMAN: Object to form.<br>25 A. Well, I don't -- I don't include | Page 54<br>Page 56<br>1 A. Oh. It is not subject to a<br>2 yes-or-no answer.<br>3 BY MR. COLEMAN:<br><b>4 Q. How about the reduction in sow</b><br>5 <b>herd by some of the defendants? Is that part</b><br>6 <b>of your definition of challenged conduct?</b><br>7 A. Are you talking about the<br>8 liquidation, for example, as another method<br>9 to reduce domestic supply?<br><b>10 Q. Yes.</b><br>11 A. So I see liquidation, harvest<br>12 reduction, and exporting as different<br>13 mechanisms by which the defendants were able<br>14 to effectuate the alleged conspiracy. But I<br>15 don't -- I don't see liquidation, for<br>16 example, or exporting to be a separate and<br>17 standalone restraint that I need to remove in<br>18 the but-for world.<br>19 What I need to remove in the<br>20 but-for world is the challenged conduct; that<br>21 is, the agreement -- the single agreement to<br>22 reduce output and raise prices via sharing of<br>23 competitively sensitive information through<br>24 Agri Stats. That's what I have to remove.<br><b>25 Q. And so at least in this context,</b> |

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| 1 you're familiar with what an agreement is.<br>2 Your model accounts for an agreement among<br>3 defendants that -- to share information<br>4 through Agri Stats?<br>5 A. I think you're speaking of my<br>6 econometric model here.<br>7 Q. I'm -- yeah, I'm just referring to<br>8 the testimony you just offered, that your<br>9 model needs to account for and remove the<br>10 agreement to exchange information through<br>11 Agri Stats.<br>12 A. Well, as you know, I set the -- I<br>13 used a conduct variable, which is a very<br>14 traditional approach to estimating price<br>15 effects from alleged price-fixing<br>16 conspiracies, and I set that conduct variable<br>17 equal to one at a certain point in 2009, as<br>18 you know, because that's when Agri Stats<br>19 began to produce, I believe, the sales<br>20 report.<br>21 So the whole -- the whole<br>22 construct of the model is turning on this<br>23 information exchange by Agri Stats.<br>24 That's -- that's when I set the variable<br>25 equal to one. | Page 57<br>1 sensitive information by Agri Stats.<br>2 So participate just kind of<br>3 glosses over the anticompetitive act.<br>4 BY MR. COLEMAN:<br>5 Q. Right. So there was -- all right.<br>6 I just want to understand your articulation<br>7 of what the challenged conduct was.<br>8 So there was an agreement to<br>9 reduce supply; is that right?<br>10 MR. RISSMAN: Objection.<br>11 Mischaracterizes testimony.<br>12 A. That's -- that's an aspect of the<br>13 agreement, but I think that the best way to<br>14 understand the agreement is -- now I've said<br>15 it about ten times.<br>16 But it's the -- the agreement is<br>17 to reduce domestic supply -- the alleged<br>18 agreement is to reduce domestic supply and to<br>19 increase domestic prices through the sharing<br>20 of competitively sensitive information by<br>21 Agri Stats.<br>22 BY MR. COLEMAN:<br>23 Q. And, again, coming back to the sow<br>24 herd reduction, was there an agreement to<br>25 reduce sows?   |
| Page 58<br>1 Q. So there was an agreement to<br>2 participate in Agri Stats, right?<br>3 A. I don't -- I don't like --<br>4 MR. RISSMAN: Object to form.<br>5 Mischaracterizes his testimony, again.<br>6 MR. COLEMAN: I'm literary<br>7 quoting from what he just said.<br>8 But go ahead. Go ahead. If you<br>9 want to --<br>10 MR. RISSMAN: He --<br>11 MR. COLEMAN: -- make your<br>12 testimony, that's fine.<br>13 A. No, I wouldn't -- I wouldn't say<br>14 an agreement to participate in Agri Stats.<br>15 That's -- that's not how I would describe the<br>16 challenged conduct. That's not how I've<br>17 defined it, you know, over the five or six<br>18 times you have asked me during this call --<br>19 during this deposition.<br>20 It is the agreement to suppress<br>21 domestic supply and to raise -- or the<br>22 alleged agreement, to suppress domestic<br>23 supply and to domestic prices was achieved<br>24 principally through coordination made<br>25 possible through the sharing of competitively            | Page 59<br>Page 60<br>1 MR. RISSMAN: Objection.<br>2 A. I think the complaint alleges that<br>3 the agreement touched the decision making<br>4 with respect to liquidation. But -- and I<br>5 said -- I will say the same thing for<br>6 liquidation that I said for exporting.<br>7 I'm not removing liquidation in<br>8 the but-for world. Right. I do not set<br>9 liquidation to zero in the but-for world and<br>10 then solve for the price fix. I do not set<br>11 exporting to zero in the but-for world. It<br>12 is not a restraint along the lines of the<br>13 restraint that I have removed, which is the<br>14 sharing of competitively sensitive<br>15 information among the defendants via<br>16 Agri Stats.<br>17 So just to put a bow on this,<br>18 there will be some liquidation in the but-for<br>19 world. There will be some exporting in the<br>20 but-for world. It's not a restraint to be<br>21 eliminated in the but-for world when I said<br>22 about modeling the but-for world and the<br>23 challenged conduct.<br>24 BY MR. COLEMAN:<br>25 Q. So how much would sows -- the sow |

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| 1 <b>herd have been reduced in the but-for world?</b><br>2           MR. RISSMAN: I'm going to<br>3           instruct the witness that if he hasn't<br>4           formed an opinion on that, he<br>5           shouldn't answer.<br>6   BY MR. COLEMAN:<br>7        Q. Let's set that as a precursor.<br>8        Did you form an opinion on how<br>9        much the sow herd would have been reduced in<br>10       the but-for world?<br>11      A. I have not. I've estimated, like<br>12     I said, how much more domestic supply would<br>13     have occurred in the but-for world absent the<br>14     alleged conspiracy, and I have not performed<br>15     a decomposition as to how that output<br>16     increase would be achieved.<br>17      But I think it's reasonable to<br>18     infer that it would be achieved through some<br>19     combination of the mechanisms that were<br>20     employed by the defendants to reduce domestic<br>21     output.<br>22      Q. So just coming back to the basic<br>23     question as to whether or not you formed an<br>24     opinion about how much the sow herd would<br>25     have been reduced, if at all, in the but-for    | Page 61<br><br>1   that some liquidation, of course, would occur<br>2   in the but-for world. Some exporting would<br>3   occur in the but-for world.<br>4           What I haven't done is, once my<br>5   model generates the output effect -- because<br>6   I understand that output effect is a<br>7   requisite element of the proof of<br>8   anticompetitive injury here.<br>9           What my model doesn't do is then<br>10   take a step forward and say, okay, of that<br>11   reduced output, I can tell you that X percent<br>12   is coming from increased exports, Y percent<br>13   is coming from Harvard -- harvest reduction,<br>14   and Z percent is coming from liquidation --<br>15   came from liquidation -- increased<br>16   liquidation.<br>17      I don't do that. I don't do such<br>18     a decomposition. I don't think such a<br>19     decomposition is necessary. And I feel like<br>20     that is what you are getting at with this<br>21     question. And I just want the record to be<br>22     clear as to what I have done and have not<br>23     done.<br>24      Q. Well, you understand that economic<br>25     analysis and this kind of modeling will often |
| Page 62<br><br>1   world.<br>2       The answer is you did not form an<br>3   opinion on that subject; is that right?<br>4      A. Well, I want the record to be very<br>5   clear. I estimated with -- with great<br>6   precision, in my opinion, the extent of the<br>7   output reduction that could be attributed to<br>8   the challenged conduct. I have not performed<br>9   a decomposition of that output reduction<br>10   according to the three primary mechanisms the<br>11   defendants used to reduce domestic supply.<br>12      I have not done that. I don't<br>13   think such a decomposition is necessary, and<br>14   I will leave it at that.<br>15      Q. Well -- and I'm just a lawyer.<br>16   I'm not sure I understand what decomposition<br>17   is. I guess what I want to know is did your<br>18   model or any opinion that you formed in this<br>19   case allow you to assess whether sow herd<br>20   reductions would have occurred in the but-for<br>21   world?<br>22      A. Oh. The model doesn't tell us<br>23   that, but I think just economic insight<br>24   analysis and review of the qualitative<br>25   record, all the institutional details, is | Page 62<br><br>Page 64<br><br>1   include a comparison of the -- you know, the<br>2   assumed world with the conduct that you're<br>3   focused on, take that and compare it to what<br>4   would have happened in the but-for world.<br>5   Right?<br>6           I mean, that's -- that's not a --<br>7   you're familiar with that sort of economic<br>8   reasoning, right?<br>9      A. Well, I think you're describing<br>10   benchmarking, which is precisely what I've<br>11   done by comparing prices in a dirty or<br>12   contaminated environment with a clean<br>13   environment which predates the conduct<br>14   period. That's precisely what I've done<br>15   here.<br>16      Q. Right. But your model is not<br>17   delivering an answer as to what would have<br>18   happened to exports in the but-for world or<br>19   the sow herd in the but-for world, right?<br>20      MR. RISSMAN: Objection. Asked<br>21   and answered.<br>22      A. I think my model is giving a --<br>23   can be used, as I've used it, to give an<br>24   estimation of the output effect going to<br>25   challenged conduct across the various  |

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| 1 mechanisms. But it does not provide a<br>2 decomposition of that output effect into the<br>3 three categories of -- or mechanisms that<br>4 were used by defendants to reduce domestic<br>5 supply.<br>6 BY MR. COLEMAN:<br>7 <b>Q. Did you just reference three</b><br>8 <b>mechanisms to reduce domestic supply of pork?</b><br>9     A. Yes.<br>10 <b>Q. And so what was the third?</b><br>11    A. Well, these were the ones that<br>12 I -- that I include in my report, but it's --<br>13 I will show you the section. It's<br>14 8(C)(1)(a), and those are -- those are<br>15 liquidation, harvest reduction and exports.<br>16 <b>Q. Right. And exactly what was the</b><br>17 <b>harvest reduction? Explain how that --</b><br>18 <b>exactly what lever was used there?</b><br>19    MR. RISSMAN: Object to form.<br>20    A. Just a second.<br>21       So Paragraph 213 explains the<br>22 definition of harvest reduction, occurs when<br>23 defendants decrease the number of plant hours<br>24 or suspend operation so that fewer hogs would<br>25 be slaughtered, which temporarily decreases  | Page 65 | 1 <b>those three levers, not a -- not a separate</b><br>2 <b>mechanism or lever to reduce output, right?</b><br>3     A. I think there is some overlap in<br>4 those, but I do think that you can -- you can<br>5 think about the output effects as a way of<br>6 moving up the demand curve from higher<br>7 prices. I will leave it at that.<br>8 <b>Q. Well, what -- what exactly did the</b><br>9 <b>defendants do other than the three things we</b><br>10 <b>have identified?</b><br>11    A. Oh, they conspired to raise<br>12 prices. They alleged -- they conspired to<br>13 raise prices. Right. And so if you -- if<br>14 you -- if an information intermediary like<br>15 Agri Stats is providing you profit-making<br>16 opportunities to raise prices that you<br>17 wouldn't otherwise know, and you raise prices<br>18 because of that, the effect is going to be a<br>19 reduction in consumption in the US market as<br>20 an output effect.<br>21       It really has nothing to do with,<br>22 you know, the three levers that we talked<br>23 about before.<br>24 <b>Q. Yeah. So did -- did you review</b><br>25 <b>evidence in which two or more defendants ever</b> | Page 67 |
| 1 the domestic availability of pork products.<br>2 BY MR. COLEMAN:<br>3 <b>Q. Yeah, we'll circle back to that.</b><br>4     A. Okay.<br>5 <b>Q. And anything else that -- any</b><br>6 <b>other conduct that you think is -- meets that</b><br>7 <b>definition of harvest reduction in your mind?</b><br>8     A. Well, I have a whole section that<br>9 describes the record evidence on harvest<br>10 reduction. But I think the definition I just<br>11 gave you is the top-line definition of what<br>12 harvest reduction is.<br>13 <b>Q. So we've got three levers of the</b><br>14 <b>assumed conspiracy: increase in exports,</b><br>15 <b>reduce in sows, harvest reductions. Anything</b><br>16 <b>else?</b><br>17    A. No. I would say that output will<br>18 also fall naturally -- just consumption in<br>19 the domestic market will fall naturally with<br>20 price increases. And so to the extent the<br>21 conspiracy helped elevate prices artificially<br>22 above competitive levels, that's a movement<br>23 up the demand curve and a reduction in the<br>24 amount of output in the US market.<br>25 <b>Q. That sounds like the effects of</b> | Page 66 | 1 <b>agreed on price?</b><br>2     A. No, I don't know what --<br>3     MR. RISSMAN: Object to form.<br>4     A. I don't know what you mean by<br>5 "agreed," but to an economist if -- if an<br>6 information broker is exchanging<br>7 competitively sensitive information across to<br>8 defendants, and they utilize and rely on that<br>9 information to effectuate a price increase<br>10 that otherwise would not have been possible,<br>11 and that is an anticompetitive price effect.<br>12       Now, if you want to call it -- I<br>13 think -- what was the word that you were<br>14 trying to use -- agreement -- you know, I'm<br>15 not offering opinions on agreements. I'm<br>16 offering economic opinions. I will leave it<br>17 at that.<br>18     BY MR. COLEMAN:<br>19 <b>Q. So when was the conspiracy formed?</b><br>20    A. Well, the complaint --<br>21     MR. RISSMAN: Object to form and<br>22 foundation.<br>23    A. The complaint -- can you give me<br>24 the question again?<br>25   | Page 68 |

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| 1 BY MR. COLEMAN:<br>2 Q. When was the conspiracy formed?<br>3 MR. RISSMAN: Same objection.<br>4 A. The complaint asserts that the<br>5 conduct period began in 2009 with the release<br>6 of certain Agri Stats reports, and so that's<br>7 why I define the conduct variable in my model<br>8 to begin in 2009.<br>9 BY MR. COLEMAN:<br>10 Q. And is that why you treated 2008<br>11 as a preconspiracy benchmark year?<br>12 A. Yes.<br>13 Q. And so you understood that 2008<br>14 predicated the conspiracy?<br>15 MR. RISSMAN: Object to form.<br>16 And calls for a legal conclusion.<br>17 BY MR. COLEMAN:<br>18 Q. Well, at least that's the<br>19 assumption.<br>20 MR. COLEMAN: I am sorry, Josh.<br>21 Yeah. Go ahead.<br>22 I apologize to the court<br>23 reporter, too.<br>24 Did you catch his objection?<br>25 THE STENOGRAPHER: Yes.   | Page 69<br><br>1 Do you assume that there was any<br>2 agreement to refrain from slaughtering all<br>3 pigs available for purchase in any given<br>4 year?<br>5 MR. RISSMAN: I'm going to<br>6 object as mischaracterizing the<br>7 testimony, and object to form.<br>8 A. I don't think that I make such an<br>9 assumption, and, again, when use the word<br>10 "agreement," the only -- the only agreement<br>11 that I'm assuming away is the single<br>12 agreement to reduce domestic supply and to --<br>13 and to increase domestic prices -- the<br>14 alleged agreement.<br>15 I just want it to be -- the record<br>16 to be clear. I know I've said this now five<br>17 times, but I don't think there is a -- there<br>18 is alleged to be a separate agreement<br>19 pertaining to harvesting or distinct or<br>20 separate agreement with respect to exporting.<br>21 I think there's one single<br>22 agreement, as I understand the complaint.<br>23 BY MR. COLEMAN:<br>24 Q. Are you aware of any instance in<br>25 which the defendants did not slaughter all |
| Page 70<br><br>1 BY MR. COLEMAN:<br>2 Q. And so your model -- you can<br>3 strike the previous question.<br>4 Your model assumes that 2008 was a<br>5 preconspiracy year, right?<br>6 MR. RISSMAN: Object to form.<br>7 A. The model does treat 2008 as a<br>8 preconspiracy year. That is correct. And I<br>9 recognize that I've -- there is some evidence<br>10 in the record to suggest that Agri Stats had<br>11 already begun, at least through its marketing<br>12 campaign, to -- to move -- place the wheels<br>13 in motion to form this alleged conspiracy or<br>14 this cartel.<br>15 And to the extent that any prices<br>16 in 2008, which I've considered to be an edge<br>17 year, reflect the effects of that preliminary<br>18 coordination, then my benchmark -- my clean<br>19 benchmark will naturally produce a<br>20 conservative estimate of the price effect<br>21 owing to the conspiracy.<br>22 BY MR. COLEMAN:<br>23 Q. So you've mentioned that harvest<br>24 agreement was one of the mechanisms used to<br>25 reduce the domestic supply of pork. | Page 70<br><br>1 pigs that were raised domestically in a given<br>2 year?<br>3 A. Am I aware of such an episode? I<br>4 don't know if I understand the question. All<br>5 defendants or any defendant did not slaughter<br>6 all pigs?<br>7 Q. Yeah. We'll just break it down.<br>8 I mean, I think you realize that market hogs<br>9 are raised on hog farms. We sometimes call<br>10 them -- refer to those hog farms as hog<br>11 producers, right?<br>12 A. Okay. Right.<br>13 Q. And so biological lifestyle --<br>14 lifecycle of hogs involves a sow farrowing a<br>15 litter, right?<br>16 A. Okay. That's fair.<br>17 Q. And the litter is weaned, and pigs<br>18 are fed to a market weight and are available<br>19 for slaughter, right?<br>20 A. That is fair.<br>21 Q. And I'm wondering whether you have<br>22 identified any instance in which defendants<br>23 failed to slaughter all of the domestic hogs<br>24 that were at market weight and available for<br>25 slaughter?  |

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| 1           MR. RISSMAN: I will just<br>2 instruct the witness not to -- to only<br>3 testify as to opinions he's offered in<br>4 this case.<br>5       A. Yeah. I mean, sitting here, I'm<br>6 not aware of an occasion where they failed<br>7 to. I'm not even sure I understand -- I<br>8 understand the question. But I can't tell<br>9 you an instance where defendants failed or<br>10 did not fail. I just don't -- I don't have<br>11 recall on that.<br>12 BY MR. COLEMAN:<br>13 <b>Q. Is that something you looked at?</b><br>14      MR. RISSMAN: Same -- same<br>15 instruction. Instruct the witness not<br>16 to answer any questions about<br>17 preliminary analysis or opinions he<br>18 has not formed.<br>19      A. I think the only opinions that I<br>20 formed with respect to liquidation, if that's<br>21 the topic that we are discussing, and maybe<br>22 it's not. I may be confused.<br>23 BY MR. COLEMAN:<br>24 <b>Q. It's not.</b><br>25      A. Okay. What's the topic? I'm   | Page 73<br><br>1 <b>been slaughtered on that particular Saturday</b><br>2 <b>are still on the farms getting bigger by the</b><br>3 <b>day, right?</b><br>4        MR. RISSMAN: Objection. Form.<br>5        Foundation.<br>6           Same instruction not to offer<br>7           opinions -- offer testimony about<br>8           things you haven't formed an opinion<br>9           on.<br>10       A. You -- the hypothetical here is<br>11      that they're still available on the hog farm,<br>12      and that seems to suggest they haven't made<br>13      their way to the processor yet. But I think<br>14      that this notion of harvest reduction is<br>15      agnostic as to the timing of the delivery of<br>16      the hog to the processing plant. Right.<br>17           It could affect -- it could affect<br>18      output in myriad ways. It could slow down<br>19      hogs coming, but it could also just slow down<br>20      the output, the production, the processing of<br>21      hogs that have already came.<br>22 BY MR. COLEMAN:<br>23 <b>Q. Right. And I'm trying to connect</b><br>24 <b>the dots here. So if there's a temporary</b><br>25 <b>reduction in slaughter, one or more</b> |
| Page 74<br><br>1 sorry.<br>2 <b>Q. At any given time, there's an</b><br>3 <b>inventory of market hogs available on farms,</b><br>4 <b>available for slaughter weights, right?</b><br>5      A. Okay.<br>6 <b>Q. And I am wondering if you're aware</b><br>7 <b>of any instance in which the defendants</b><br>8 <b>collectively failed to purchase all of those</b><br>9 <b>market hogs available for slaughter?</b><br>10     MR. RISSMAN: I'm going to give<br>11      the same instruction.<br>12     A. Yeah. I don't recall that being<br>13      alleged in the complaint, if that's what you<br>14      are asking.<br>15 BY MR. COLEMAN:<br>16 <b>Q. And you're not -- are you aware of</b><br>17 <b>any facts indicating that that ever happened?</b><br>18     MR. RISSMAN: Same instruction.<br>19     A. Yeah. I don't think that I've<br>20      come across such facts. I don't have an<br>21      opinion on that.<br>22 BY MR. COLEMAN:<br>23 <b>Q. And so coming back to the harvest</b><br>24 <b>issue. If a defendant doesn't run a Saturday</b><br>25 <b>shift, some hogs -- the hogs that would have</b> | Page 74<br><br>1 <b>defendants don't run a Saturday shift and</b><br>2 <b>slaughter fewer hogs, what happens to those</b><br>3 <b>hogs?</b><br>4        MR. RISSMAN: Same objection.<br>5        Foundation.<br>6        A. Well, I think lots of things could<br>7      happen to them, but the -- what's not<br>8      happening is they're not being processed and<br>9      put into the relevant market that we are<br>10     setting here, and that could generate an<br>11      output effect and the concomitant price<br>12      effect.<br>13 BY MR. COLEMAN:<br>14 <b>Q. Okay. So I want -- I want to push</b><br>15 <b>back on that.</b><br>16 <b>The hogs that are not slaughtered</b><br>17 <b>on a particular Saturday still exist, right?</b><br>18 <b>They're not slaughtered?</b><br>19        MR. RISSMAN: Objection. Form<br>20      and foundation.<br>21        A. They're not slaughtered, but<br>22      they're not being put into the market -- the<br>23      relevant market here.<br>24 BY MR. COLEMAN:<br>25 <b>Q. Right. And are you aware of any</b>  |

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|   | Page 77  |         | Page 79 |
| 1 <b>producers ever liquidating marketing hogs</b><br>2 <b>because a processor wouldn't buy them?</b><br>3            MR. RISSMAN: Object to form.<br>4       And I will give the same instruction<br>5       on not offering testimony on opinions<br>6       you haven't formed.<br>7       A. I think the allegations here -- so<br>8       let me just make clear, the allegations here<br>9       are that liquidation was a strategy, or<br>10      lever, to use your word, that was employed by<br>11      defendants to reduce domestic supply.<br>12      And you're asking me for the -- do<br>13     I know of an occasion which liquidation was<br>14     triggered by a particular processor who had<br>15     slowed things down. And I don't think that<br>16     that -- that is what's being alleged, and I<br>17     don't think that's the -- consistent with the<br>18     evidence that I've reviewed.<br>19   BY MR. COLEMAN:<br>20 <b>Q. Yeah. And in particular, there's</b><br>21 <b>allegations about the liquidation of sows,</b><br>22 <b>right?</b><br>23    A. Yes.<br>24 <b>Q. And are you aware of any</b><br>25 <b>allegations or evidence that there was</b> | 1       period, a liquidation of market hogs.<br>2            MR. RISSMAN: Yeah. I think<br>3       it's -- same -- same instruction.<br>4   BY MR. COLEMAN:<br>5 <b>Q. Do you know of any such facts?</b><br>6            MR. RISSMAN: If you haven't<br>7       formed an opinion on it, I'm<br>8       instructing you not to answer.<br>9       A. Okay. I have not formed an<br>10      opinion on it.<br>11      MR. COLEMAN: Josh, I'm asking<br>12     about what facts he knows, and you're<br>13     instructing him not to answer.<br>14      MR. RISSMAN: Well, the stip<br>15     very clearly says that any facts<br>16     considered but not relied upon in<br>17     forming an opinion are not -- are out<br>18     of bounds.<br>19   BY MR. COLEMAN:<br>20 <b>Q. You did form an opinion that the</b><br>21 <b>reduction in harvest among defendants -- the</b><br>22 <b>alleged reduction in harvest among defendants</b><br>23 <b>reduced supply, right?</b><br>24    A. Yes.<br>25 <b>Q. And the particular lever you point</b>   | Page 78 | Page 80 |
| 1 <b>liquidation of market hogs?</b><br>2            MR. RISSMAN: Same objection and<br>3       instruction.<br>4       A. I have to go back through the<br>5       records that I reviewed and the section on<br>6       liquidation to see if any of it touches hogs.<br>7       So just sitting here, I'm not going to be<br>8       able to answer the question. I would have to<br>9       go back through my section -- through my<br>10      section of the report.<br>11   BY MR. COLEMAN:<br>12 <b>Q. My question is whether you're</b><br>13 <b>aware of anything.</b><br>14 <b>Do you recall any allegations or</b><br>15 <b>evidence, as you're sitting here today, on</b><br>16 <b>that point?</b><br>17            MR. RISSMAN: So if the witness<br>18       hasn't formed an opinion about it, I<br>19       will instruct him not to answer the<br>20       question.<br>21            MR. COLEMAN: I'm asking about<br>22       facts, not opinion. I'm asking him,<br>23       is he aware of any facts or any<br>24       allegation that there has ever been,<br>25       or at least during the relevant class  | 1 <b>to is a reduction in shifts, Saturday</b><br>2 <b>harvest, things of that sort, right?</b><br>3        A. Correct.<br>4 <b>Q. And I'm just trying to understand</b><br>5 <b>if there was not liquidation of market hogs,</b><br>6 <b>how can that temporary pause in the slaughter</b><br>7 <b>reduce the domestic supply of pork?</b><br>8        A. Oh, because we are talking about<br>9       the supply in the relevant market, and so if<br>10      you're not processing the pork, you're not<br>11      putting it into the relevant market, that<br>12      reduces output, and that could have an effect<br>13      of prices at least in the short run.<br>14 <b>Q. What's the -- what's the time</b><br>15 <b>effect of how long a reduction in a shift or</b><br>16 <b>a Saturday slaughter would reduce domestic</b><br>17 <b>supply?</b><br>18       A. Well, can I ask you, are you --<br>19       you want me to assume that they took out<br>20       Saturday operation on one Saturday or on<br>21       consecutive Saturdays or two months or a<br>22       quarter?<br>23       I think it would help me with the<br>24       hypothetical.<br>25 <b>Q. It's not a hypothetical. I'm</b> |         |         |

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| Page 81  | Page 83   |
| <p>1 asking what actually happened on the market.<br/>2 And you formed an opinion that the reduction<br/>3 in Saturday harvest is capable of reducing<br/>4 supply. I want to know how that happened.<br/>5 If all those pigs that weren't<br/>6 harvested on a particular Saturday are on the<br/>7 farms getting fatter by the day, how did the<br/>8 decision to not run a Saturday shift reduce<br/>9 the overall supply of pork?</p> <p>10 A. Well, it reduces the supply of<br/>11 pork in the relevant market. Right. When<br/>12 they're on the farm, they're not in the<br/>13 relevant market. We defined the relevant<br/>14 market here as -- as pigs that are available<br/>15 post-processing. Processed pork for direct<br/>16 purchasers. So while they're on the farm,<br/>17 they're not -- they're not yet in the<br/>18 relevant market.</p> <p>19 Q. Do you have an understanding of<br/>20 how much weight hogs gain per day when<br/>21 they're at market weight?</p> <p>22 A. I don't know the per day. I know<br/>23 that they're targeting something on the order<br/>24 of 270 pounds, but I -- but I don't know how<br/>25 fast they're going per day.</p> | <p>1 those hogs at the time of slaughter, right?<br/>2 A. I think that's fair.<br/>3 Q. So if we are in a situation where<br/>4 there's not a liquidation of market hogs,<br/>5 pausing the slaughter means that those hogs<br/>6 get bigger, right?</p> <p>7 MR. RISSMAN: Objection.<br/>8 Foundation.<br/>9 A. Well, they could, but you're also<br/>10 asking me to assume away the liquidation that<br/>11 apparently has occurred, so -- but for the<br/>12 hypothetical, I can assume that liquidation<br/>13 is not occurring.</p> <p>14 BY MR. COLEMAN:</p> <p>15 Q. Well, I thought we established<br/>16 that you're not aware of any instance of<br/>17 liquidation of market hogs, right?</p> <p>18 A. Oh. So I'm aware of liquidation,<br/>19 but as to what type of pig, hog versus sow,<br/>20 I -- you know, that I can't tell you sitting<br/>21 here.</p> <p>22 Q. And I will be specific. So,<br/>23 again, I went through this, but you're not<br/>24 aware of any instance in which defendants or<br/>25 producers in the relevant time period</p> |
| Page 82  | Page 84   |
| <p>1 Q. And you understand that the supply<br/>2 of pork is a function of how many hogs are<br/>3 slaughtered and how big those hogs are,<br/>4 right?</p> <p>5 A. You have to specify as -- into<br/>6 which market. Are we talking about the<br/>7 relevant market here or an upstream market on<br/>8 the farm?</p> <p>9 Q. I'm just talking about the supply<br/>10 of -- the volume of the pork produced by the<br/>11 harvest.</p> <p>12 A. From the farms?</p> <p>13 Q. Hogs are harvested, and how big<br/>14 those hogs are, right?</p> <p>15 A. You're speaking about supply of<br/>16 the farm at the upstream market, correct?</p> <p>17 Q. No, I'm talking about the<br/>18 processing.</p> <p>19 A. Oh, processing. Okay.</p> <p>20 Q. Right. The slaughter of hogs, the<br/>21 harvest of hogs.</p> <p>22 A. Okay.</p> <p>23 Q. The volume of pork produced from<br/>24 the slaughter of hogs is a function of how<br/>25 many hogs are slaughtered and the weight of</p>   | <p>1 liquidated market hogs, are you?</p> <p>2 A. I'm only aware of the stuff that I<br/>3 reviewed and relied on and made it into the<br/>4 liquidation section of my report, and I don't<br/>5 have perfect recall as to the decomposition<br/>6 of the type of pig in that section sitting<br/>7 here.</p> <p>8 MR. RISSMAN: Craig, we have<br/>9 been going about an hour 25. Do you<br/>10 want take a break?</p> <p>11 MR. COLEMAN: Yeah, that works.<br/>12 How much time do you need?</p> <p>13 THE VIDEOGRAPHER: Time is<br/>14 11:05 a.m. Going off the record.<br/>15 (A brief recess was held from 11:05<br/>16 a.m. to 11:21 a.m.)</p> <p>17 THE VIDEOGRAPHER: The time is<br/>18 11:21 a.m. We are back on the record.</p> <p>19 BY MR. COLEMAN:</p> <p>20 Q. So your econometric model is<br/>21 designed to control for the cost of the pig<br/>22 itself, right?</p> <p>23 A. I mean, that's not what it's<br/>24 designed for, but I do control for the cost<br/>25 of the pig as one of my control variables.</p>                                    |

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| 1     Q. And for all hogs purchased by a<br>2 packer from a producer, that cost of the pig<br>3 to the packer is the price that the packer<br>4 pays to the producer, right?<br>5     A. That's fair, yes.<br>6     Q. And you have data from the<br>7 defendants showing their purchases of market<br>8 hogs, right?<br>9     A. I believe so, yes.<br>10    Q. But you did not use that data as a<br>11 control for the cost of pigs to the<br>12 defendants, did you?<br>13    A. I think that's fair. I used the<br>14 cost to rear the pig 270 pounds as kept by<br>15 the Iowa researchers as my -- as my control<br>16 variable.<br>17    Q. And that's the cost of raising the<br>18 pig, or at least one of the costs for raising<br>19 the pigs to the producer, whomever that<br>20 producer might be, right?<br>21    A. Yes. The upstream, yes. The cost<br>22 incurred by the upstream producer of the pig,<br>23 yes.<br>24    Q. And you also know that the sales<br>25 of pigs to packers are subject to USDA | Page 85<br><br>1     Do you know whether the sales of<br>2 pigs to packers are subject to USDA mandatory<br>3 price reporting?<br>4     A. It's possible. I've come across<br>5 that in the record. It's possible that one<br>6 of my staffers has reviewed that data, the<br>7 USDA data, but as you know, I used the Iowa<br>8 data instead as my control variable for the<br>9 cost of the pig.<br>10    Q. Now, when you say the "Iowa data,"<br>11 is that the Iowa State data on corn costs?<br>12    A. No. Corn was just one of the<br>13 inputs. But if you -- if you go into the<br>14 section of my report, it talks about the<br>15 total cost of rearing a pig at 270; corn<br>16 being one of the inputs.<br>17    Q. Are you aware of whether Iowa<br>18 State also produces data showing break-even<br>19 amounts for producers?<br>20    A. Sitting here, I'm not aware of it.<br>21    Q. Are you familiar with the concept<br>22 of a break-even amount with regard to market<br>23 hogs?<br>24    A. You'd have to give me more context<br>25 than just break even. Break even in what? |
| Page 86<br><br>1 <b>mandatory price reporting, right?</b><br>2     A. I don't know if I know that. I<br>3 may be aware of it, but just sitting here, I<br>4 can't vouch for that fact.<br>5     Q. So you could confirm that you did<br>6 not look at USDA data regarding the sales<br>7 price of market hogs to the packers; is that<br>8 right?<br>9     MR. RISSMAN: Objection. Goes<br>10 beyond the expert step.<br>11     I will instruct the witness not<br>12 to answer.<br>13     THE WITNESS: Okay.<br>14     MR. COLEMAN: Well, I think he<br>15 testified he didn't know if it exists,<br>16 right?<br>17     MR. RISSMAN: You asked him what<br>18 he looked at, and -- and the stip<br>19 doesn't allow you to ask about things<br>20 that he looked at but didn't consider<br>21 in forming his opinions, so objection<br>22 stands.<br>23 BY MR. COLEMAN:<br>24     Q. Let's just circle back to make<br>25 sure we have a clear question and answer.  | Page 86<br><br>1     In terms of profits? I don't know what -- I<br>2 don't know. Just by the word "break even,"<br>3 it's not cuing me into anything.<br>4     Q. Yeah. You haven't seen that term<br>5 used in the materials that you reviewed or<br>6 relied upon?<br>7     A. I don't think so.<br>8     Q. There is a point at which -- a<br>9 producer raising a pig incurs cost to raise<br>10 the pig, right?<br>11    A. Yes.<br>12    Q. And then the producer can sell<br>13 that pig for either the market price or a<br>14 contracted price, right?<br>15    A. It could. I think those are two<br>16 ways, yes.<br>17    Q. And there is a point at which the<br>18 producer breaks even on its costs if the<br>19 price is sufficient, right?<br>20    MR. RISSMAN: Object to form.<br>21    A. Well, there's always a price such<br>22 that the price just covers your incremental<br>23 costs, if that's what you're asking.<br>24 BY MR. COLEMAN:<br>25     Q. That's a basic economic concept,   |

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| Page 89   | Page 91  |
| <p>1 right, that there's a point in which<br/>2 anybody -- any firm that produces widgets or<br/>3 whatever is making money on a marginal or<br/>4 incremental sale, right?</p> <p>5 A. Yes. And I would just also note<br/>6 that for a vertically integrated processor,<br/>7 there is no price at the upstream level<br/>8 because they're selling to themselves. But I<br/>9 presume all of these questions are about a<br/>10 nonvertically integrated processor, who is<br/>11 having to actually buy from a third party.</p> <p>12 Q. Right. That's a helpful<br/>13 clarification.</p> <p>14 You're aware that there are a<br/>15 number of producers of market hogs in the<br/>16 United States that are not vertically<br/>17 integrated, right?</p> <p>18 A. Correct.</p> <p>19 Q. And for those -- are you<br/>20 comfortable with us referring to those as<br/>21 independent producers; that is, they're not<br/>22 owned or controlled by a packer?</p> <p>23 A. Sure. I can use that term.</p> <p>24 Q. For those independent producers,<br/>25 like any firm in just about any industry,</p> | <p>1 independent producers, right?</p> <p>2 A. I did not control for it, but I<br/>3 did -- you know, I absolutely looked at. You<br/>4 know, in my background section I looked at<br/>5 the profitability of the upstream hog<br/>6 producers, and I analyzed, you know, what<br/>7 share of the retail and of the wholesale that<br/>8 they were capturing and how it was falling<br/>9 over time.</p> <p>10 So I looked at that. I certainly<br/>11 assessed it, but it was not explicitly<br/>12 controlled for in my econometric model.</p> <p>13 Q. If an independent hog producer<br/>14 makes its own decision to reduce the number<br/>15 of sows it maintains or the number of hogs it<br/>16 raises, you agree that that should not be<br/>17 deemed challenged conduct, right?</p> <p>18 A. I don't think that's part of the<br/>19 challenged conduct here. If I'm<br/>20 understanding the question correctly, it's<br/>21 just independent upstream hog producer<br/>22 decides to make fewer hogs. That is not --<br/>23 that's not part of the challenged conduct, as<br/>24 I understand it.</p> <p>25 Q. And if an independent hog producer</p> |
| Page 90   | Page 92  |
| <p>1 there's a point at which they -- they could<br/>2 break even on their costs based on the price,<br/>3 right?</p> <p>4 A. I think I will grant you that<br/>5 there's a price at which they break even<br/>6 depending on some relevant measure of cost,<br/>7 yes.</p> <p>8 Q. But in any case, your -- the data<br/>9 that -- or the variable -- your control<br/>10 focused on the cost of raising a hog rather<br/>11 than profitability to the farmer or the<br/>12 producer, right?</p> <p>13 A. I think that's fair. I'm looking<br/>14 at the cost as opposed to the profitability.<br/>15 They're certainly going to be related, but<br/>16 I'm using the cost as my control variable for<br/>17 what's happening upstream.</p> <p>18 I have another control variable,<br/>19 too. It's just -- the pig mortality rate,<br/>20 but -- but -- that's capturing upstream<br/>21 activity as well. But, yes, the cost<br/>22 variable I use is the one I describe in my<br/>23 report, the Iowa variable.</p> <p>24 Q. And you did not control for<br/>25 profitability of hog production for</p>   | <p>1 is losing money on every hog that it sells,<br/>2 it's economically reasonable for that<br/>3 producer to reduce production, right?</p> <p>4 MR. RISSMAN: Object to form.</p> <p>5 Incomplete hypothetical.</p> <p>6 A. That's not quite the shutdown rule<br/>7 in economics. I could tell you the shutdown<br/>8 rule, but it's a little more complicated.<br/>9 It's whether -- whether the price goes below<br/>10 your average variable cost. That would<br/>11 suggest shutting down.</p> <p>12 But so long as you're making -- so<br/>13 long as you're making contributions that are<br/>14 paying down your fixed costs, an economist<br/>15 would advise you to stay in business, keep<br/>16 producing.</p> <p>17 BY MR. COLEMAN:</p> <p>18 Q. And if a hog producer makes the<br/>19 judgment that it's economically rational for<br/>20 it to reduce its hog production, based on<br/>21 loss of profitability or whatever is going on<br/>22 in the hog market, then it's economically<br/>23 reasonable to reduce production, right?</p> <p>24 MR. RISSMAN: Object to form.</p> <p>25 A. There could be myriad reasons why</p>                 |

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| 1 an independent hog farmer reduces production.<br>2 I will grant you that.<br>3 BY MR. COLEMAN:<br>4 <b>Q. And why --</b><br>5         (Simultaneous unreportable<br>6             crosstalk.)<br>7     A. I'm sorry.<br>8 <b>Q. Go ahead.</b><br>9     A. No. I was just going to say,<br>10 including your hypothetical, which is<br>11 profitability, yes.<br>12 <b>Q. And similarly, if a hog producer</b><br>13 <b>is not finding it profitable to raise hogs,</b><br>14 <b>it might make the decision to engage in fewer</b><br>15 <b>farrowings or buy fewer weaner pigs, right?</b><br>16         MR. RISSMAN: Object to form and<br>17             calls for incomplete hypothetical.<br>18     A. I just want to make sure, we are<br>19 still talking about the upstream hog<br>20 producer, and you're asking if they could<br>21 make a decision to buy fewer pigs themselves?<br>22 Is that -- is that fair?<br>23         Do you want to give it to me<br>24 again? I am sorry. I may have lost this.<br>25   | Page 93<br>1 ways that they can achieve an output<br>2 reduction. I think the ones that you name<br>3 are reasonable.<br>4 <b>Q. Did you analyze whether there were</b><br>5 <b>any time periods from 2009 to 2018 in which</b><br>6 <b>it was economically sensible or rational for</b><br>7 <b>independent producers to cut back on hog</b><br>8 <b>production?</b><br>9         MR. RISSMAN: I'll instruct the<br>10 witness to only answer to the extent<br>11 he is offering an opinion in this<br>12 case.<br>13 BY MR. COLEMAN:<br>14 <b>Q. Did you analyze that?</b><br>15         MR. RISSMAN: Same objection.<br>16         If you analyzed it but are not<br>17 offering an opinion, I'm instructing<br>18 you not to answer. In other words --<br>19         A. Okay. Well, I did not after an<br>20 opinion on it, so counsel is instructing me<br>21 not to answer it.<br>22 BY MR. COLEMAN:<br>23 <b>Q. Do you know whether there were any</b><br>24 <b>periods between 2009 and 2018 in which it was</b><br>25 <b>economic rational for independent producers</b>  |
| Page 94<br>1 BY MR. COLEMAN:<br>2 <b>Q. Yes. Yes.</b><br>3 <b>So in a period of unprofitability</b><br>4 <b>where an independent producer is losing money</b><br>5 <b>on their operation, it may be reasonable for</b><br>6 <b>that producer to have fewer pigs on the farm,</b><br>7 <b>right?</b><br>8         MR. RISSMAN: Object to form and<br>9             incomplete hypothetical.<br>10     A. I mean, I have to accept that<br>11 there are conditions under which it would<br>12 make sense for an independent to reduce<br>13 output. I mean, that's -- you're asking me<br>14 almost a possibility here. Of course, it's<br>15 possible.<br>16 BY MR. COLEMAN:<br>17 <b>Q. And there's a number of ways for</b><br>18 <b>an independent producer to reduce its output</b><br>19 <b>of market hogs, including fewer farrowings,</b><br>20 <b>buying fewer weaner pigs, just raising</b><br>21 <b>fewer -- fewer weaned pigs, right?</b><br>22     A. Well, now you're asking me, like,<br>23 if I accept the predicate that its -- prices<br>24 have fallen below the farmer's average<br>25 variable costs. There are many different | Page 94<br>1 <b>to cut back on hog production?</b><br>2         MR. RISSMAN: Object to form.<br>3         Same instruction.<br>4         A. Oh, okay. You have seen the<br>5 background section of my report, and I<br>6 understand counsel doesn't want me to go into<br>7 new opinions, so I'm not going to answer it.<br>8 BY MR. COLEMAN:<br>9 <b>Q. So you might know, but you're not</b><br>10 <b>going to tell me?</b><br>11     A. I have to do what my counsel tells<br>12 me to do, and I've been instructed not to<br>13 answer it. I don't know what else I can say.<br>14         MR. RISSMAN: If you have an<br>15             opinion -- if you have offered an<br>16             opinion about it in the report, you<br>17             can go into it, or if you have an<br>18             opinion about it, you're prepared to<br>19             testify to, but...<br>20     A. I have not offered an opinion on<br>21 the profitability. I will leave it at that.<br>22 BY MR. COLEMAN:<br>23 <b>Q. If you're studying the extent to</b><br>24 <b>which decreased pork supply can be attributed</b><br>25 <b>to the defendants in a trust misconduct,</b> |

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| <p style="text-align: right;">Page 97</p> <p>1   <b>isn't it important to know whether<br/>2 independent producers have their own reasons<br/>3 for cutting back on supply?</b></p> <p>4       A. No. And that's -- the answer is<br/>5 no in many ways. I mean, that's not what I'm<br/>6 studying, and even if I were studying that,<br/>7 that wouldn't be what's important.</p> <p>8           I mean, I am studying whether or<br/>9 not there are any price effects. My<br/>10 econometric model is studying whether there<br/>11 are price effects that can be attributed to<br/>12 the challenged conduct.</p> <p>13          And decision making with respect<br/>14 to upstream on supply, it could -- they could<br/>15 be competitive. It could be monopolized. It<br/>16 could be all sorts of things. But what we<br/>17 are studying here is the output effects on<br/>18 the relevant market, which is in the<br/>19 processing market, and that's what I aimed my<br/>20 analyses at, is what happened to the output<br/>21 in the processing market.</p> <p>22       <b>Q. If independent producers restrict<br/>23 the number of pigs they're raising on a farm,<br/>24 that reduces the supply of pork, right?</b></p> <p>25       MR. RISSMAN: Object to form.</p> | <p style="text-align: right;">Page 99</p> <p>1 from the upstream provider -- an integrated<br/>2 upstream provider.</p> <p>3 BY MR. COLEMAN:</p> <p>4       <b>Q. So, for example, for Smithfield,<br/>5 do you know what percentage of the hogs that<br/>6 it slaughters were produced by its farms that<br/>7 it owned versus purchased from independent<br/>8 producers?</b></p> <p>9       A. Sitting here, I don't have that<br/>10 number, and I also don't think it would<br/>11 effect -- even knowing it, it couldn't be<br/>12 used in any of the calculations I did.</p> <p>13       <b>Q. And if we go through the other<br/>14 defendants, Tyson, Hormel, et cetera, do you<br/>15 know what percentage of any of those<br/>16 defendants purchased -- purchased from<br/>17 independent producers as opposed to raise<br/>18 themselves?</b></p> <p>19       A. Well, I know which ones are<br/>20 vertically integrated, but I took your<br/>21 question to mean of those that are vertically<br/>22 integrated, you know, what percentage are<br/>23 coming from their own versus third parties.</p> <p>24           Maybe I misinterpreted the<br/>25 question. But that -- sitting here, I can't</p> |
| <p style="text-align: right;">Page 98</p> <p>1       A. That's correct. But if you<br/>2 understand the mechanics of my output<br/>3 assessment, it turns entirely on the price<br/>4 effects that can be attributed to the<br/>5 challenged conduct, so it would be impossible<br/>6 to say that that output estimate is being<br/>7 driven by forces that are occurring upstream.</p> <p>8 BY MR. COLEMAN:</p> <p>9       <b>Q. What percentage of market hogs<br/>10 sold -- or what percentage of hogs<br/>11 slaughtered by the defendants were raised by<br/>12 independent producers and sold to the<br/>13 packers?</b></p> <p>14       A. Sitting --</p> <p>15       <b>Q. And, again, during the relevant<br/>16 time period or any particular year during the<br/>17 time period?</b></p> <p>18       MR. RISSMAN: Object to form.</p> <p>19       A. Sitting here, I don't think I have<br/>20 an estimate for you. I know that some but<br/>21 not all of the defendants were vertically<br/>22 integrated into the production -- upstream<br/>23 production of pigs. But I don't -- I don't<br/>24 know what percentage of, say, the sales and<br/>25 the transaction data were sourced internally</p>  | <p style="text-align: right;">Page 100</p> <p>1 tell you those splits.</p> <p>2       <b>Q. Does any defendant raise more than<br/>3 50 percent of the hogs that it slaughters<br/>4 itself?</b></p> <p>5       A. Again, sitting here, I can't tell<br/>6 you the percentage. So it's possible that<br/>7 some are over 50, but I just can't tell you.</p> <p>8       <b>Q. So one of your -- one of the<br/>9 allegations and part of that challenged<br/>10 conduct is a reduction in the sow herd,<br/>11 right?</b></p> <p>12       MR. RISSMAN: Object to form.</p> <p>13       A. I would say --<br/>14           (Simultaneous unreportable<br/>15           crosstalk.)</p> <p>16 BY MR. COLEMAN:</p> <p>17       <b>Q. I am trying to orient you to --<br/>18 because it's what I want to talk about.<br/>19           Bit if you don't think that's part<br/>20 of the allegations, then that's fine.</b></p> <p>21       A. No, I wasn't -- that wasn't where<br/>22 I was going. I just wanted to make clear<br/>23 that there's -- my understanding of a<br/>24 challenged conduct is that it's a single<br/>25 restraint, and it may have touched</p>   |

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| 1 liquidation.<br>2 That could have been the<br>3 mechanism, but there wasn't a separate<br>4 restraint that's being challenged that -- of<br>5 an agreement that only pertains to<br>6 liquidation. I will grant you that<br>7 liquidation is one of the levers by which the<br>8 alleged conspiracy reduced domestic supply.<br><b>9 Q. What percentage of the sow herd in<br/>10 the United States is owned by the defendants<br/>11 versus independent producers?</b><br>12 A. I -- sitting here, I don't know<br>13 that split.<br><b>14 Q. And have you been able to identify<br/>15 any barriers to an independent producer<br/>16 expanding its sow herd in response to a<br/>17 defendant reducing its sow herd?</b><br>18 MR. RISSMAN: I'm going to -- if<br>19 the witness has an opinion about that,<br>20 he can offer it. But if he doesn't<br>21 have an opinion, I will instruct him<br>22 not to answer.<br>23 A. Yeah. I don't have an opinion,<br>24 and the only entry barriers that I looked at,<br>25 as you know, are in the relevant market and             | Page 101<br>1 could give you a very precise estimate of the<br>2 duration.<br><b>3 Q. And you are not aware of anything<br/>4 stopping independent producers from expanding<br/>5 their sow herd in response to cutbacks by<br/>6 Smithfield or any other defendant, right?</b><br>7 MR. RISSMAN: I will instruct<br>8 the witness to answer to the extent he<br>9 has an opinion about that.<br>10 A. I don't have an opinion on that.<br>11 BY MR. COLEMAN:<br><b>12 Q. What's a gilt?</b><br>13 A. I think we have -- it's a female<br>14 pig that has -- is not ready to deliver<br>15 piglets or something like that.<br><b>16 Q. And do you know whether gilts are<br/>17 capable of becoming sows?</b><br>18 A. Are they incapable?<br><b>19 Q. Capable.</b><br>20 A. I think eventually they might be<br>21 capable, but I think that that is the word to<br>22 describe them at a certain stage of their<br>23 lives.<br><b>24 Q. You don't know how long it takes<br/>25 for a gilt to become a sow or capable of</b>                     |
| Page 102<br>1 the processing market.<br>2 BY MR. COLEMAN:<br><b>3 Q. How long does it take to produce a<br/>4 sow that's capable of farrowing piglets?</b><br>5 A. Sitting here, I don't know that.<br>6 I don't know that by memory.<br><b>7 Q. Well, you did opine that<br/>8 Smithfield's reduction in sows had lingering<br/>9 effects -- long-lasting effects on the<br/>10 marketplace, right?</b><br>11 A. I think so. I think I made that<br>12 opinion, but you can take me to it. But why<br>13 don't we just accept it for purposes of the<br>14 next question.<br><b>15 Q. And so how long could that effect<br/>16 last in your mind?</b><br>17 A. I -- sitting here, I don't think<br>18 it can tell you precisely how long it lasts.<br>19 I think that I have a table or figure that<br>20 plots kind of the suppression of the domestic<br>21 production over time, and I think that that<br>22 could be indicative of how long the effects<br>23 could last, if you look at how long the line<br>24 was below the projected.<br>25 But otherwise, I don't think I | Page 102<br>1 <b>becoming a sow?</b><br>2 A. I've -- I've read that -- I've<br>3 read that, I'm sure, in putting together the<br>4 background section, but I can't give you that<br>5 statistic off the top of my head.<br><b>6 Q. Do you know anything about<br/>7 Smithfield's inventory or Tyson's inventory<br/>8 of gilts on their farms when they liquidated<br/>9 sows?</b><br>10 A. Sitting here, no, I can't give you<br>11 a characterization of that.<br><b>12 Q. Do you know anything about<br/>13 circovirus?</b><br>14 A. No, I've studied other viruses.<br>15 But circa virus?<br><b>16 Q. Circovirus?</b><br>17 A. Oh, circovirus. I looked at two<br>18 other viruses, but not circo, I don't think.<br><b>19 Q. Do you know whether circovirus and<br/>20 the vaccine to reduce or eliminate circovirus<br/>21 had any impact on supply during the relevant<br/>22 time period?</b><br>23 A. No, but to the extent that it<br>24 affected the pig mortality rate, it would be<br>25 controlled for in my pig mortality variable, |

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| <p>1 but I don't know enough about that virus.</p> <p>2 Q. You understand that pig diseases</p> <p>3 can have significant impacts on the supply of</p> <p>4 hogs and ultimately the supply of pork,</p> <p>5 right?</p> <p>6 A. Correct.</p> <p>7 Q. Could you turn to Tab 62?</p> <p>8 MR. RISSMAN: Give me just a</p> <p>9 second because it's in the back of</p> <p>10 this.</p> <p>11 MR. COLEMAN: I had the same</p> <p>12 problem. The binder is it too big.</p> <p>13 Jacob, you could go ahead and</p> <p>14 call it up on the screen.</p> <p>15 BY MR. COLEMAN:</p> <p>16 Q. Are you with me?</p> <p>17 A. Yes.</p> <p>18 Q. And what's been marked as</p> <p>19 Exhibit 3 is a USDA report with the title</p> <p>20 "Users Guide to USDA's LMR Hog Price</p> <p>21 Reports," right?</p> <p>22 (Exhibit 3 was marked for</p> <p>23 identification.)</p> <p>24 A. Yes.</p> <p>25 BY MR. COLEMAN:</p>  | <p>1 A. Yes.</p> <p>2 Q. And does that help you with your</p> <p>3 understanding that sales of hogs to packers</p> <p>4 are subject to USDA mandatory price</p> <p>5 reporting?</p> <p>6 A. That is an inference you could</p> <p>7 make from that. It doesn't say that in the</p> <p>8 text, but I think it's a fair inference that</p> <p>9 you could make.</p> <p>10 Q. Did you read this?</p> <p>11 A. I've read portions of it, not the</p> <p>12 entire thing, but I've -- the portion that</p> <p>13 you just had me read does not say it's a</p> <p>14 requirement that you report your sales to</p> <p>15 USDA. It's an inference you're making.</p> <p>16 Q. Do you know what mandatory price</p> <p>17 reporting is?</p> <p>18 A. Well, from the phrase "mandatory</p> <p>19 price reporting," it would imply that price</p> <p>20 reporting is compelled. It's mandatory.</p> <p>21 Q. You're inferring that from my use</p> <p>22 of the phrase and not your knowledge of what</p> <p>23 it actually is?</p> <p>24 MR. RISSMAN: Object to form.</p>                |
| Page 106  | Page 108  |
| <p>1 Q. And that's a document you have</p> <p>2 seen before, and, in fact, it was included in</p> <p>3 your reliance materials, right?</p> <p>4 A. I believe so.</p> <p>5 Q. And it says in the first paragraph</p> <p>6 that: Livestock mandatory reporting provides</p> <p>7 all market participants with the same open</p> <p>8 and transparent data for slaughter cattle,</p> <p>9 swine, sheep, box beef, lamb and wholesale</p> <p>10 pork.</p> <p>11 Do you see that?</p> <p>12 A. Yes.</p> <p>13 Q. And it goes on to say: LMR</p> <p>14 encourages competition in the marketplace by</p> <p>15 vastly improving price and supply</p> <p>16 information, bringing transparency, breadth</p> <p>17 and depth to market reporting. Correct?</p> <p>18 A. Yes.</p> <p>19 Q. And if we go to that subheader,</p> <p>20 "Purchase data," it says: Purchase data</p> <p>21 represents hogs that are purchased during a</p> <p>22 specified time period. Data includes base</p> <p>23 prices for carcass-purchased hogs and net</p> <p>24 prices and hog weights for any live hogs</p> <p>25 purchased, right?</p> | <p>1 BY MR. COLEMAN:</p> <p>2 Q. I just want to know what you know</p> <p>3 and don't know.</p> <p>4 So I mean, do you know -- do you</p> <p>5 know anything about USDA mandatory price</p> <p>6 reporting, what's included in the reports</p> <p>7 they publish?</p> <p>8 MR. RISSMAN: Object to form.</p> <p>9 A. I have some idea, yes. What I</p> <p>10 understand is that, unlike Agri Stats, USDA</p> <p>11 is collecting data and presenting it in an</p> <p>12 aggregated form such that members of an</p> <p>13 alleged conspiracy could not find out where</p> <p>14 they are in relation to any particular rival.</p> <p>15 BY MR. COLEMAN:</p> <p>16 Q. So if we go to -- well, the --</p> <p>17 actually, the last bullet point where it says</p> <p>18 net price, on that page, and that's under the</p> <p>19 header "Key LMR Definitions."</p> <p>20 Do you see that?</p> <p>21 A. Yes.</p> <p>22 Q. And the net price is total amount</p> <p>23 paid by the packer to a producer, right?</p> <p>24 A. Yes.</p> <p>25 Q. And if we turn the page, there are</p> |

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| <p style="text-align: right;">Page 109</p> <p>1 a number of purchase types explained. So<br/>     2 there's a purchase type header.<br/>     3 Let Jacob catch up with us.<br/>     4 And purchase types include a<br/>     5 negotiated purchase, which is defined to be a<br/>     6 cash or spot market purchase by a packer of<br/>     7 livestock from a producer under which the<br/>     8 base price for livestock is determined by the<br/>     9 seller-buyer interaction and agreement on<br/>     10 delivery date.</p> <p>11 Do you see that?</p> <p>12 A. Yes.</p> <p>13 Q. And a negotiated purchase would be<br/>     14 an example of a packer paying money for a<br/>     15 market hog to an independent producer, right?</p> <p>16 MR. RISSMAN: Objection.</p> <p>17 Foundation.</p> <p>18 A. I don't see that there, but if you<br/>     19 want me to interpret that language --</p> <p>20 BY MR. COLEMAN:</p> <p>21 Q. No, that's fair. Josh's<br/>     22 foundation objection is well taken. I don't<br/>     23 want to put you past what you know and what<br/>     24 you don't know.</p> <p>25 So if you don't know what a</p> | <p style="text-align: right;">Page 111</p> <p>1 too.</p> <p>2 A. Okay. I see the different<br/>     3 purchase types. And this is -- my<br/>     4 understanding is this is what would be<br/>     5 reported to USDA.</p> <p>6 Q. And in each of those purchase<br/>     7 types listed here -- there's actually five of<br/>     8 them -- negotiated purchase, negotiated<br/>     9 formula purchase, swine or pork market<br/>     10 formula purchase, other market formula<br/>     11 purchase or other purchase agreement.</p> <p>12 In each of those, we have a packer<br/>     13 producing hogs by an independent producer,<br/>     14 right?</p> <p>15 A. I mean, you could have that. I --<br/>     16 you keep saying independent producer. I<br/>     17 don't know why this would necessarily rule<br/>     18 out a vertically integrated producer, but I<br/>     19 mean, I can accept that these definitely<br/>     20 include independents.</p> <p>21 Q. Well, we have a definition of --<br/>     22 if we scroll down, entities and sellers. And<br/>     23 there's a specific category for packer-owned<br/>     24 swine, right?</p> <p>25 MR. COLEMAN: Oh, I'm sorry.</p> |
| <p style="text-align: right;">Page 110</p> <p>1 negotiated purchase involves, tell me.<br/>     2 And so the question is, do you<br/>     3 understand whether negotiated purchases of<br/>     4 hogs involve a packer paying an independent<br/>     5 producer for hogs?</p> <p>6 A. I think it can include that. I<br/>     7 will leave it at that.</p> <p>8 Q. Right. So in a negotiated<br/>     9 purchase, you got a packer, you got an<br/>     10 independent producer, and you got a hog. And<br/>     11 the packer pays the hog. And this is one<br/>     12 type of the pricing mechanism for that<br/>     13 purchase, right?</p> <p>14 A. Okay.</p> <p>15 Q. Do you understand that?</p> <p>16 A. Sure.</p> <p>17 Q. And then the other purchase types<br/>     18 include a negotiated formula purchase, swine<br/>     19 or pork formula purchase or other market<br/>     20 formula purchase.</p> <p>21 Do you see that?</p> <p>22 A. Actually, I can't see that, so I<br/>     23 will go back to the -- I'm looking back at my<br/>     24 paper version.</p> <p>25 Q. It makes life easier on Jacob,</p>                           | <p style="text-align: right;">Page 112</p> <p>1 Stay on the same page, Jacob.<br/>     2 Packer-owned swine is right there.</p> <p>3 A. Yeah, I see it under entity<br/>     4 sellers.</p> <p>5 BY MR. COLEMAN:</p> <p>6 Q. Right.</p> <p>7 A. Yeah, I see it. I'm looking at<br/>     8 the paper version. I've got it.</p> <p>9 Q. So the USDA requires packers to<br/>     10 report whether they've -- whether the --<br/>     11 those hogs that are reported are<br/>     12 packer-owned, right?</p> <p>13 MR. RISSMAN: Objection to form<br/>     14 and foundation.</p> <p>15 A. I think -- yeah, you couldn't tell<br/>     16 that from this -- this page by itself. So I<br/>     17 don't know --</p> <p>18 (Simultaneous unreportable<br/>     19 crosstalk.)</p> <p>20 A. No, I don't know the exact, you<br/>     21 know, reporting requirements, but it would be<br/>     22 reasonable to tell the USDA whether or not<br/>     23 you owned -- were vertically integrated.</p> <p>24 Q. And, in fact, if we look at<br/>     25 Figure 1 on the next page, it provides a</p>   |

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| <p style="text-align: right;">Page 113</p> <p>1 sample report, and there's a category for<br/>2 producer-sold hogs, and it includes all the<br/>3 hogs sold under the various pricing<br/>4 mechanisms, right?</p> <p>5 A. Yes.</p> <p>6 Q. And then we have packer-sold hogs,<br/>7 right?</p> <p>8 A. Yes.</p> <p>9 Q. And so for any given report, we<br/>10 can tell which hogs were produced by<br/>11 vertically integrated packers as packer-owned<br/>12 or packer-sold and which were produced by<br/>13 independent producers, right?</p> <p>14 MR. RISSMAN: Objection. That<br/>15 mischaracterizes the document pretty<br/>16 blatantly. I think if you looked at<br/>17 the document, you would know that's<br/>18 not the case.</p> <p>19 MR. COLEMAN: Josh, I'm not<br/>20 going to -- you can object.</p> <p>21 MR. RISSMAN: I'm going to make<br/>22 an objection that the bullet point<br/>23 next to packer-sold needs to be read<br/>24 into the record so it's a complete<br/>25 record.</p>   | <p style="text-align: right;">Page 115</p> <p>1 I -- what I -- I do not get the impression<br/>2 from this page is that this is what's<br/>3 necessarily available to the public.</p> <p>4 Q. Do you know whether this<br/>5 information is reported out to the public?</p> <p>6 A. My understanding is that what's<br/>7 reported out to the public is -- is<br/>8 aggregated first so that you wouldn't be able<br/>9 to see the kind of detail that might be on a<br/>10 report that is filled out and submitted by a<br/>11 particular packer.</p> <p>12 Q. Do you know whether the USDA<br/>13 produces reports that show how many hogs sold<br/>14 in any given time period were producer-sold<br/>15 and subject to those various purchase types<br/>16 or pricing formulas that are listed there?</p> <p>17 A. Again, my understanding is that<br/>18 such reporting would be aggregated across<br/>19 multiple packers, and would also come with<br/>20 some time delay.</p> <p>21 Q. Yeah. I'm not asking whether you<br/>22 can identify particular packers or particular<br/>23 producers. I'm simply asking whether -- you<br/>24 know whether we can look at the producer-sold<br/>25 category and look at any particular USDA</p> |
| <p style="text-align: right;">Page 114</p> <p>1 MR. COLEMAN: Yeah. I'm just<br/>2 trying to figure out what Dr. Singer<br/>3 knows, and I'm getting the impression<br/>4 that he does not understand the<br/>5 difference -- how to ascertain from a<br/>6 USDA report which hogs were produced<br/>7 by independent producers and which<br/>8 were produced by a packer, so --</p> <p>9 MR. RISSMAN: Well, I object to<br/>10 the narrative, and I still object to<br/>11 your questioning because I think you<br/>12 were intentionally mischaracterizing<br/>13 the document.</p> <p>14 MR. COLEMAN: I appreciate that.<br/>15 Go ahead, Dr. Singer.</p> <p>16 MR. RISSMAN: What's the<br/>17 question?</p> <p>18 BY MR. COLEMAN:</p> <p>19 Q. My question is whether you can<br/>20 look at a USDA report and ascertain which<br/>21 hogs were obtained by independent producers<br/>22 by looking at the producer sold category?</p> <p>23 A. My interpretation of this page<br/>24 that you're showing me is what would have to<br/>25 be filed and submitted to the USDA. What</p> | <p style="text-align: right;">Page 116</p> <p>1 report to understand how many pigs were<br/>2 produced by independent producers from that<br/>3 report?</p> <p>4 A. I think that you could look at a<br/>5 report and get an understanding of what's<br/>6 happening in the industry at large across all<br/>7 packers with some time delay. But I think<br/>8 one of the questions or maybe series of<br/>9 questions was -- created an impression -- and<br/>10 I just wanted to push back on it -- but that<br/>11 this is the kind of detail that a rival could<br/>12 observe about another rival packer's<br/>13 purchases. I think --</p> <p>14 Q. I don't recall asking any<br/>15 questions about that.</p> <p>16 A. You actually used the word --<br/>(Reporter clarification.)</p> <p>18 A. You actually used the word, "this<br/>19 is something we can infer from the report,"<br/>20 and it was very misleading because it seemed<br/>21 to suggest that "we" is just a casual<br/>22 third-party user or some rival packer can see<br/>23 this kind of level of detail for a rival<br/>24 packer, and I just wanted to make sure the<br/>25 record is clear on that.</p>  |

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| 1       Q. Okay. I appreciate that.<br>2           I asked you whether you know<br>3           whether any point in time throughout the<br>4           alleged conspiracy period how many hogs were<br>5           produced by independent producers versus<br>6           vertically integrated packers.<br><br>7           And I believe your testimony was<br>8           that you didn't know, right?<br><br>9           A. No, that was not my testimony. My<br>10          testimony was sitting here, I can't give you<br>11          the exact number, but I'm sure we could go<br>12          look it up on a USDA report in the aggregate.<br><br>13          Q. Right. And the way we would do<br>14          that is look at this, the report, reporting<br>15          out this kind of data, right?<br><br>16          MR. RISSMAN: Object to form.<br>17          And that mischaracterizes the<br>18          document.<br>19          A. Right. This is the -- this is the<br>20          document as I understand --<br><br>21          THE WITNESS: Sorry, Josh, are<br>22          you still going?<br>23          MR. RISSMAN: Well, I just think<br>24          that you need to -- if you're going to<br>25          ask that question, you need to read | Page 117<br><br>1           MR. COLEMAN: You stated your<br>2           objection.<br>3          BY MR. COLEMAN:<br>4          Q. Please answer the question,<br>5          Dr. Singer.<br>6           THE WITNESS: Can I have the<br>7          question back, please?<br>8          (The previous question was read<br>9          back by the court reporter as<br>10         follows:<br>11          "QUESTION: And the way we would do<br>12          that is look at this, the report,<br>13          reporting out this kind of data,<br>14          right?"<br>15          MR. RISSMAN: Same objections.<br>16          A. So I think that you might be able<br>17          to get at the question that you're asking<br>18          through some USDA report. I'm not sure if<br>19          this is the report that you would use, and,<br>20          again, I just want to focus on the fact that,<br>21          setting aside what's in that bullet about<br>22          packer-to-packer sales, that this is the kind<br>23          of reporting that would come from a packer to<br>24          USDA.<br>25          It's not necessarily the reporting                              |
| Page 118<br><br>1          into the record at what point --<br>2          MR. COLEMAN: No.<br>3          MR. RISSMAN: No, don't<br>4          interrupt my objection.<br>5          (Reporter clarification.)<br>6          THE STENOGRAFHER: One at a<br>7          time. I can't --<br>8          MR. RISSMAN: I'm making a 601<br>9          objection. I think you are really<br>10         trying to blatantly mischaracterize<br>11         this document. So if you want to be<br>12         complete, you need to read in the fact<br>13         that the packer-sold category is<br>14         defined as one packer selling to<br>15         another packer, which is right there<br>16         next --<br>17          MR. COLEMAN: You're testifying,<br>18          Josh.<br>19          MR. RISSMAN: Stop<br>20         mischaracterizing the document.<br>21          MR. COLEMAN: You're testifying.<br>22          That was improper, and you know it.<br>23          MR. RISSMAN: Well, I think<br>24         you're trying to make this document be<br>25         something it's not.   | Page 118<br><br>1          that a rival packer could observe to monitor<br>2          an agreement or alleged agreement with one of<br>3          its horizontal rivals.<br>4          BY MR. COLEMAN:<br>5          Q. Yeah. And I'm just trying to<br>6          understand whether any point in time we can<br>7          tell -- whether you know we can tell how many<br>8          hogs are produced by independent producers<br>9          versus vertically integrated packers by<br>10         looking at a USDA report.<br>11          Do you know whether we can<br>12         ascertain that information through USDA<br>13         reports?<br>14          A. I think we probably could. I<br>15         don't think we could do it just from this<br>16         report in light of how that packer sold is<br>17         defined, but I imagine that sort of<br>18         information is available if you wanted to<br>19         analyze it.<br>20          Q. Let me call up Exhibit 65.<br>21          THE VIDEOGRAPHER: Do you mean<br>22         Tab 65, sir?<br>23          MR. COLEMAN: Thank you. I<br>24         appreciate that.<br>25          And this will be Exhibit 4. |

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| Page 121   | Page 123   |
| <p>1       (Exhibit 4 was marked for<br/>2       identification.)</p> <p>3       A. Okay. I see this.</p> <p>4 BY MR. COLEMAN:</p> <p>5       <b>Q. Yeah. So what been marked as</b><br/>6       <b>Exhibit 4 is a -- entitled "US Hog Marketing</b><br/>7       <b>Contract Study."</b> The authors are Glenn<br/>8       Grimes and Ron Plain.</p> <p>9       Are you familiar with Dr. Grimes<br/>10      or Dr. Plain?</p> <p>11      A. No.</p> <p>12      Q. And this is -- the letterhead at<br/>13      the top refers to the University of Missouri<br/>14      College of Agriculture, Food and Natural<br/>15      Resources.</p> <p>16      <b>Do you see that?</b></p> <p>17      A. No, I don't. I'm sorry, which -</p> <p>18      <b>Q. At the very top.</b></p> <p>19      A. Oh, let's see. Oh, yes. I see<br/>20      it. I see it, University of Missouri, yes.</p> <p>21      <b>Q. If we turn to the second page,</b><br/>22      <b>very top, we've got date January 2009, Glenn</b><br/>23      <b>Grimes, Professor Emeritus, and Ron Plain,</b><br/>24      <b>Professor at the University of Minnesota</b><br/>25      <b>[sic], right?</b></p>    | <p>1       <b>in the context of Exhibit 3, right?</b></p> <p>2       A. Yes.</p> <p>3       <b>Q. Sometimes called the spot market,</b><br/>4       <b>right?</b></p> <p>5       A. Right.</p> <p>6       <b>Q. And there are also the swine or</b><br/>7       <b>market -- pork market formula, right?</b></p> <p>8       A. I see that. It's number two.</p> <p>9       <b>Q. And number three is other market</b><br/>10      <b>formula, and number four is other purchase</b><br/>11      <b>arrangement, right?</b></p> <p>12      A. Right.</p> <p>13      <b>Q. And then number five is</b><br/>14      <b>packer-sold hogs, right?</b></p> <p>15      A. Right. Can you let me just<br/>16      read -- read down real quick, so I know where<br/>17      we're going.</p> <p>18      <b>Q. Sure.</b></p> <p>19      A. Okay.</p> <p>20           I got five and six now in my head.</p> <p>21      <b>Q. Five and six would be the category</b><br/>22      <b>of hogs raised by packers that are vertically</b><br/>23      <b>integrated, right?</b></p> <p>24      MR. RISSMAN: Object to form.</p> <p>25      A. I think there's a certain amount</p>   |
| Page 122   | Page 124   |
| <p>1       A. Missouri.</p> <p>2       <b>Q. Did I say "Minnesota"?</b></p> <p>3       A. Yes.</p> <p>4       <b>Q. Thanks for that.</b></p> <p>5       <b>Yeah. University of Missouri.</b></p> <p>6       A. Okay.</p> <p>7       <b>Q. And this is described as a</b><br/>8       <b>Department of Agricultural Economics working</b><br/>9       <b>paper, right?</b></p> <p>10      A. Yes.</p> <p>11      <b>Q. If we go to the middle of the</b><br/>12      <b>page, it says: Here are the current</b><br/>13      <b>definitions of the arrangements reported</b><br/>14      <b>under the MBR system and the changes</b><br/>15      <b>affecting comparisons of data with earlier</b><br/>16      <b>studies.</b></p> <p>17      <b>Do you see that?</b></p> <p>18      A. Yes.</p> <p>19      <b>Q. And this lists six categories</b><br/>20      <b>of -- for the reporting of the sale of market</b><br/>21      <b>hogs, right?</b></p> <p>22      A. Yes. It lists six.</p> <p>23      <b>Q. And so, for example, we got</b><br/>24      <b>negotiated, and we went -- reviewed the</b><br/>25      <b>definition of negotiated sales of market hogs</b></p> | <p>1       of vertical integration certainly in six and<br/>2       most likely in five.</p> <p>3 BY MR. COLEMAN:</p> <p>4       <b>Q. And do you know whether those</b><br/>5       <b>other four categories are hogs that are --</b><br/>6       <b>were raised by independent producers and then</b><br/>7       <b>sold to packers?</b></p> <p>8       A. I think that's a pretty fair<br/>9       inference, that they are independent given<br/>10      that five and six -- so hopefully these<br/>11      categories are mutually exclusive, but if<br/>12      they are -- with that caveat, you could infer<br/>13      that one through four is capturing or<br/>14      launching independents.</p> <p>15      <b>Q. And if we go to the next page on</b><br/>16      <b>Table 1, there's a table that sets out the</b><br/>17      <b>data on the percent of US hogs sold through</b><br/>18      <b>various pricing arrangements, right?</b></p> <p>19      A. Right.</p> <p>20      <b>Q. And 2009, Table 1 shows that</b><br/>21      <b>5.6 percent of the hogs reported to USDA that</b><br/>22      <b>were packer-sold, right?</b></p> <p>23      A. Yes.</p> <p>24      <b>Q. And 25.7 percent of the hogs that</b><br/>25      <b>year were packer-owned, right?</b></p> |

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| Page 125   | Page 127   |
| <p>1 A. Yes.</p> <p>2 Q. And the remaining hogs were those<br/>3 other four categories of hogs that were<br/>4 raised by independent producers prior to sale<br/>5 of a packer, right?</p> <p>6 A. I think that's a reasonable<br/>7 inference that the other categories are<br/>8 capturing independents.</p> <p>9 Q. So in 2009, about 70 percent of<br/>10 the hogs -- market hogs sold are slaughtered<br/>11 and reported to USDA were raised by<br/>12 independent producers, right?</p> <p>13 A. I take it you're just subtracting<br/>14 5.6 and 25.7 from a hundred?</p> <p>15 Q. Yes.</p> <p>16 A. Okay. I can follow you. I can do<br/>17 the math. I can get you to that 70, yes.</p> <p>18 Q. And so by looking at that USDA<br/>19 market mandatory reporting data,<br/>20 Professor Plain and Professor Grimes were<br/>21 able to set up the numbers showing us that<br/>22 70 percent of the hogs slaughtered and<br/>23 reported to USDA in 2009 were produced by<br/>24 independent producers, right?</p> <p>25 A. That is --</p>                           | <p>1 basis sitting here to dispute it.</p> <p>2 Q. And I think we previously<br/>3 ascertained that you don't know what -- for<br/>4 any given defendant, you don't know what<br/>5 percentage of their hogs they purchased from<br/>6 an independent producer as opposed to produce<br/>7 themselves; is that right?</p> <p>8 A. I think, sitting here, I don't<br/>9 know that. I surmise that I can probably<br/>10 find that out for you, but sitting here, I<br/>11 don't know it.</p> <p>12 Q. Do you recognize that there are<br/>13 some defendants that are more vertically<br/>14 integrated than others?</p> <p>15 A. Sure.</p> <p>16 Q. For example, do you have any idea<br/>17 for Smithfield, what percentage of the hogs<br/>18 that it slaughters were raised by its own<br/>19 farms -- vertically integrated farms as<br/>20 opposed to bought from an independent<br/>21 producer?</p> <p>22 MR. RISSMAN: Objection. Asked<br/>23 and answered.</p> <p>24 A. I don't have a different answer<br/>25 for you. Still sitting here, I don't know</p>                            |
| Page 126   | Page 128   |
| <p>1 MR. RISSMAN: Objection.<br/>2 Foundation.</p> <p>3 A. It's a reasonable inference. I<br/>4 don't want to fully embrace it because, you<br/>5 know, I'm seeing it for the first time<br/>6 sitting here. But if you asked me to go out<br/>7 and estimate that number by year, it seems<br/>8 like this study could help inform that<br/>9 answer.</p> <p>10 BY MR. COLEMAN:</p> <p>11 Q. On the next page -- the top of the<br/>12 page, the first sentence says that: By<br/>13 adding the percentage of hogs purchased in<br/>14 the negotiated markets to the percentage of<br/>15 purchased on a swine-pork market formula, the<br/>16 current study indicates that the price of at<br/>17 least 49 percent of the hogs in the US was<br/>18 directly determined by the negotiated market.</p> <p>19 Do you see that?</p> <p>20 A. Yes.</p> <p>21 Q. And do you have any basis to<br/>22 disagree with that?</p> <p>23 A. It's definitional so if that's how<br/>24 you want to define the negotiated market, it<br/>25 just naturally follows. So I don't have a</p> | <p>1 what it is, and I don't think I reported that<br/>2 either in my report.</p> <p>3 BY MR. COLEMAN:</p> <p>4 Q. Is it your opinion that defendants<br/>5 shared the same interest with respect to the<br/>6 price they paid for hogs regardless of how<br/>7 many hogs they produce themselves?</p> <p>8 MR. RISSMAN: I will instruct<br/>9 the witness to only answer if he has<br/>10 an opinion on that topic.</p> <p>11 A. I don't have an opinion, so I<br/>12 guess I won't answer it.</p> <p>13 BY MR. COLEMAN:</p> <p>14 Q. Well, one of the levers to<br/>15 implement the conspiracy, as I understand it,<br/>16 was to reduce the sow herd, restrict the<br/>17 number of hogs on farms. I mean, that's your<br/>18 opinion, that that is part of challenged<br/>19 conduct or the way that defendants<br/>20 implemented the underlying conspiracy, right?</p> <p>21 A. I think that liquidation is one of<br/>22 several ways in which they reduced output,<br/>23 yes -- alleged to -- yeah, reduced output.<br/>24 That's right.</p> <p>25 Q. Do you have an opinion as to</p> |

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| <p style="text-align: right;">Page 129</p> <p><b>1 whether the reduction in the sow herd or any<br/>2 kind of consequent reduction in the number of<br/>3 hogs produced was in the interest of all<br/>4 defendants?</b></p> <p>5 MR. RISSMAN: Same limiting<br/>6 instruction.</p> <p>7 A. I think that my model shows that<br/>8 the challenged conduct can be associated with<br/>9 artificially inflated prices at the packer or<br/>10 processing level, and the extent that all<br/>11 defendants are processors, then they would<br/>12 have a shared and common interest in engaging<br/>13 in conduct that artificially inflated those<br/>14 prices that would artificially inflate their<br/>15 profits.</p> <p>16 BY MR. COLEMAN:</p> <p>17 Q. And so you have the opinion that<br/>18 it was in Hormel's interest, for example, to<br/>19 raise the price of the hogs that it<br/>20 purchased?</p> <p>21 MR. RISSMAN: Objection. Form.<br/>22 Mischaracterizes testimony. And same<br/>23 limiting instruction on whether you<br/>24 have an opinion on that.<br/>25 A. Yeah. I don't have opinions on --</p>    | <p style="text-align: right;">Page 131</p> <p><b>1 herd and consequently reduce the supply of<br/>2 market hogs available right?</b></p> <p>3 A. That's one of the three levers.<br/>4 That one occurs, I will grant you, in the<br/>5 upstream market, but the other two are<br/>6 occurring in relevant markets.</p> <p><b>7 Q. And did you evaluate the extent to<br/>8 which the reduction in sow herd raised the<br/>9 price of market hogs?</b></p> <p>10 A. Again, are you asking me about the<br/>11 upstream prices? I don't have a model that<br/>12 explains how the challenged conduct affected<br/>13 upstream prices. I'm aiming my analysis and<br/>14 attention on price effects in the relevant<br/>15 market.</p> <p><b>16 Q. Yeah, I appreciate that<br/>17 clarification.</b></p> <p><b>18 Just so we are clear, by "upstream<br/>19 market," do you mean the price that packers<br/>20 pay for the hogs that they're purchasing from<br/>21 independent producers?</b></p> <p>22 A. Not the price, but hog production.<br/>23 The price would be part of it, but yes.<br/>24 It's -- the upstream market is the hog<br/>25 production market, yes.</p> |
| <p style="text-align: right;">Page 130</p> <p>1 and that's not even characterizing the<br/>2 effects of the alleged conspiracy. The<br/>3 effects of the alleged conspiracy is to<br/>4 inflate prices in the relevant market, and<br/>5 you're asking me whether price effects in the<br/>6 upstream market was consistent with the<br/>7 interest of Hormel.</p> <p>8 I don't have opinions about the<br/>9 price effects in the upstream. I don't think<br/>10 the alleged conspiracy was aimed at<br/>11 effectuating price effects in the upstream<br/>12 market.</p> <p>13 BY MR. COLEMAN:</p> <p><b>14 Q. Yeah. Because that wouldn't make<br/>15 sense, right, for pork packers to conspire to<br/>16 raise the price that they pay for market<br/>17 hogs?</b></p> <p>18 MR. RISSMAN: Object to form.<br/>19 A. I think that if there were<br/>20 conspiracy, that the objective would be to<br/>21 artificially inflate the prices of processed<br/>22 pigs that they sold.</p> <p>23 BY MR. COLEMAN:</p> <p><b>24 Q. One of the levers to do that would<br/>25 be to -- in your mind, was to reduce the sow</b></p> | <p style="text-align: right;">Page 132</p> <p><b>1 Q. Do you have any opinion as to<br/>2 whether the defendant pork packers compete to<br/>3 purchase hogs?</b></p> <p>4 A. Not really. I have no opinions<br/>5 for the purpose of this case. I don't. I<br/>6 haven't studied the nature of the rivalry in<br/>7 the upstream market.</p> <p><b>8 Q. How many hog farms are there in<br/>9 the United States?</b></p> <p>10 A. I don't know.</p> <p><b>11 Q. And do you -- in your mind, do you<br/>12 have any opinion as to whether hog production<br/>13 is relatively concentrated or unconcentrated?</b></p> <p>14 A. My understanding is that it, at<br/>15 least compared to the packer market, the<br/>16 relevant market here is less concentrated.<br/>17 But I can't -- sitting here, I haven't<br/>18 studied the level of concentration in the<br/>19 upstream market.</p> <p><b>20 Q. The USDA maintains data and<br/>21 information about the number and size of hog<br/>22 producers, right?</b></p> <p>23 MR. RISSMAN: Objection.<br/>24 Foundation.<br/>25 A. It's possible they do.</p>   |

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| 1 BY MR. COLEMAN:<br>2 <b>Q. You just don't know one way or the</b><br>3 <b>other?</b><br>4     A. It's not something I studied. I<br>5     studied phenomenon in the relevant market,<br>6     not in the upstream market.<br>7 <b>Q. Is it -- do you think the hog</b><br>8 <b>market and production by independent</b><br>9 <b>producers is completely irrelevant to your</b><br>10 <b>analysis?</b><br>11     A. I think that to the extent there<br>12    was a conspiracy to raise prices and suppress<br>13    output in the processing market, that that<br>14    could have anticompetitive effects regardless<br>15    of what is going on upstream.<br>16       So "irrelevant" is kind of a harsh<br>17    term, but I'm having a hard time<br>18    contemplating a fact pattern, whether it's<br>19    perfectly competitively supplied upstream,<br>20    perfectly monopolized upstream. That would<br>21    somehow upset or negate a conspiracy to raise<br>22    prices in the relevant market.<br>23       I'm having a hard time figuring<br>24    out how you get out of that one by pointing<br>25    to what's happening upstream.                     | Page 133<br><br>1 by the market. Now, to the extent that the<br>2 packers have buying power, they could<br>3 suppress the price below competitive levels,<br>4 and that's consistent with, I think, Figure 4<br>5 in my report in the background section.<br>6 <b>Q. And that would be the packers'</b><br>7 <b>interest, if anything, right?</b><br>8 <b>If there was a conspiracy and</b><br>9 <b>cartel behavior with respect to buying hogs,</b><br>10 <b>it would be to lower the price they were</b><br>11 <b>paying for hogs, right?</b><br>12       MR. RISSMAN: Object to form.<br>13       A. No, I don't like -- I don't like<br>14    how you put it because you act as if that's<br>15    the only thing that could raise their<br>16    profits. It's true that if they could<br>17    conspire to reduce the price of an input,<br>18    that would increase their profits.<br>19       But it's also true that if they<br>20    could conspire to raise the price of what<br>21    they're selling in the relevant market, the<br>22    processing market, that would also increase<br>23    their profits. They aren't mutually<br>24    exclusive.<br>25                       |
| Page 134<br><br>1 <b>Q. Well, you're not aware of any</b><br>2 <b>instance in which -- in the relevant time</b><br>3 <b>period in which packers declined to purchase</b><br>4 <b>and harvest the hogs produced by independent</b><br>5 <b>farmers, right?</b><br>6       MR. RISSMAN: Objection. Form.<br>7       Calls for speculation.<br>8       A. I don't think that was one of the<br>9    levers that I reviewed. I reviewed<br>10    liquidation, which is happening upstream, and<br>11    harvest reduction and exports. Those are the<br>12    levers that I reviewed.<br>13     BY MR. COLEMAN:<br>14 <b>Q. And independent producers make the</b><br>15 <b>decision about how many sows they want to</b><br>16 <b>maintain, right?</b><br>17       MR. RISSMAN: Objection.<br>18       Foundation.<br>19       A. I think that a firm that lacks<br>20    market power is going -- can produce as much<br>21    it wants at the prevailing market price.<br>22 <b>Q. But prevailing market price for an</b><br>23 <b>independent producer is the price that the</b><br>24 <b>packers paid for the hog, right?</b><br>25       A. Well, it's the price that is set | Page 134<br><br>1 BY MR. COLEMAN:<br>2 <b>Q. My point was if there was -- if a</b><br>3 <b>conspiracy extended to the purchase of market</b><br>4 <b>hogs, and the cartel that you assumed to have</b><br>5 <b>exist existed, the interest of the cartel</b><br>6 <b>would have been in lowering the price that</b><br>7 <b>they paid for -- for hogs, right?</b><br>8       MR. RISSMAN: Object to form.<br>9       A. Yeah. I don't think that's what<br>10    the conspiracy -- the alleged conspiracy is<br>11    about, as I understand the complaint and<br>12    challenged conduct. I don't think there's an<br>13    attempt to suppress prices by virtue -- in<br>14    the upstream market by virtue of<br>15    coordination.<br>16       I just don't recall that being an<br>17    element of the case.<br>18     BY MR. COLEMAN:<br>19 <b>Q. There's no allegation of that kind</b><br>20 <b>of collusion, right?</b><br>21       A. I don't recall one. I would have<br>22    to -- you know, to feel comfortable and<br>23    confident, I would have to go back through<br>24    the complaint, but my understanding is that<br>25    the allegations are aimed at competitive |

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| Page 137  | Page 139  |
| <p>1 facts or anticompetitive facts in the<br/>2 processing market and what's sold by the<br/>3 defendants.</p> <p><b>4 Q. And you would agree that a<br/>5 decision by an individual farm to<br/>6 underproduce in a competitive market is met<br/>7 by rivals filling the production gap, right?</b></p> <p>8 MR. RISSMAN: Objection. Vague<br/>9 and incomplete hypothetical.</p> <p>10 A. Just to make sure I have it, this<br/>11 is a -- an independent firm or just a firm in<br/>12 a competitive market, you want me to assume?</p> <p>13 BY MR. COLEMAN:</p> <p><b>14 Q. Yes.</b></p> <p>15 A. Yeah. And their decision not to<br/>16 produce is going to redound to the benefit of<br/>17 other rivals; that's what you're asking?</p> <p><b>18 Q. My question was whether -- if<br/>19 it -- in a competitive market, if one<br/>20 individual firm reduces its production or<br/>21 underproduces -- that loss of production will<br/>22 be met by rivals filling in the production<br/>23 gap, right?</b></p> <p>24 MR. RISSMAN: Object to form.</p> <p>25 A. I think that's fair. By</p>   | <p>1 the independents. I will just leave it at<br/>2 that.</p> <p>3 BY MR. COLEMAN:</p> <p><b>4 Q. You haven't studied that?</b></p> <p>5 A. I have not. I have not.</p> <p><b>6 Q. I'm going to pull up Tab 66.</b></p> <p>7 MR. COLEMAN: Jacob, are we on<br/>8 Exhibit 5?</p> <p>9 MR. RISSMAN: This one has been<br/>10 marked previously. Do you want to<br/>11 keep the same marking or --</p> <p>12 MR. COLEMAN: Oh, yeah. Thanks<br/>13 for that.<br/>(Exhibit 5 was marked for<br/>identification.)</p> <p>14 BY MR. COLEMAN:</p> <p><b>17 Q. Yeah. This has been previously<br/>18 marked as Meyer Exhibit 2.</b></p> <p><b>19 And, Dr. Singer, let me know when<br/>20 you're -- when you're with us and ready to --</b></p> <p>21 A. I'm with you. I've not read the<br/>22 study, but, yeah, I've seen it. Now I've<br/>23 looked at it, at least the title.</p> <p><b>24 Q. And you're familiar with<br/>25 Dr. Meyer, right, Dr. Steve Meyer, who</b></p>  |
| Page 138  | Page 140  |
| <p>1 definition, if we are ask -- we are talking<br/>2 about an atomistic firm that lacks market<br/>3 power, then its decision to withhold<br/>4 production by itself is not going to affect<br/>5 market prices.</p> <p>6 BY MR. COLEMAN:</p> <p><b>7 Q. So what prevented the independent<br/>8 producers from expanding their sow herds or<br/>9 adding production, increase the farrowings<br/>10 and buying more weaner pigs from Canada, any<br/>11 of those things in response to Smithfield or<br/>12 Tyson reducing their sow herd?</b></p> <p>13 MR. RISSMAN: Object to form.</p> <p>14 A. And if you studied that and have an<br/>15 opinion to offer, you can do that.</p> <p>16 A. I haven't studied the reaction of<br/>17 independents to the liquidation that occurred<br/>18 here. But I will note that based on the<br/>19 figure that you just gave me, about<br/>20 30 percent being controlled by the packers<br/>21 themselves, that seems to be a substantial<br/>22 and economically significant share such that<br/>23 if there were attempts by the packers to<br/>24 liquidate and to reduce supply that could<br/>25 have an effect that wouldn't be easily met by</p> | <p><b>1 authored this article?</b></p> <p>2 A. I don't know if I'm familiar.<br/>3 It's possible that I've cited something else<br/>4 he's done, but I -- just sitting here, the<br/>5 name is not familiar.</p> <p><b>6 Q. You cited him multiple times in<br/>7 your report, right?</b></p> <p>8 A. I would have to go back. I don't<br/>9 remember the author of every study. You<br/>10 know, the report has hundreds of citations,<br/>11 so it's possible that I cited him multiple<br/>12 times.</p> <p><b>13 Q. You recognize that Dr. Meyer is an<br/>14 agricultural economist with particular focus<br/>15 on the hog industry, right?</b></p> <p>16 MR. RISSMAN: Object to form.</p> <p>17 Foundation.</p> <p>18 BY MR. COLEMAN:</p> <p><b>19 Q. If you -- I am sorry. If you<br/>20 don't know, you don't know.</b></p> <p>21 A. I mean, based on -- all I can do<br/>22 is -- based on the study that you're showing<br/>23 me, that looks like it's certainly an<br/>24 interest of his.</p> <p><b>25 Q. If you turn to page -- the second</b></p> |

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| 1 page of the document, scroll down to: The<br>2 importance of packing capacity.<br>3 And the second paragraph there<br>4 says: Furthermore, no one in the packing<br>5 industry sector decides how much to produce.<br>6 That decision rests solely with the people<br>7 who breed and farrow sows.<br>8 Do you see that?<br>9 A. Yes.<br>10 Q. Do you have a basis to disagree<br>11 with Dr. Meyer's assessment on that point?<br>12 MR. RISSMAN: Object to form and<br>13 foundation.<br>14 A. Yes, I do have a basis. If what<br>15 he's saying is producing in a relevant<br>16 market, then I've seen record evidence that<br>17 is inconsistent with that claim.<br>18 If he's using the word "produce"<br>19 to explain what's happening upstream in the<br>20 pig production market, then I would agree<br>21 with it. It's not clear and I can't -- I<br>22 can't -- I would have to read the surrounding<br>23 paragraphs to understand what he means by how<br>24 much to produce.<br>25  | Page 141<br><br>1 that would allow a large packer to influence<br>2 the output in the upstream market. One is to<br>3 the extent they're vertically integrated,<br>4 that's their decision about how much to<br>5 produce.<br>6 But, two, to the extent they have<br>7 monopsony power -- and a lot of these<br>8 defendants are very large buyers in the<br>9 upstream market -- they could -- they could<br>10 suppress output by pushing the upstream<br>11 prices below the marginal revenue product<br>12 below the competitive levels.<br>13 Q. Yeah. We have established that<br>14 there's no allegation or evidence that you've<br>15 reviewed of an exercise of monopsony power by<br>16 the defendants, right?<br>17 A. No, that's not true. Well, I just<br>18 -- for the record, I've got a figure showing<br>19 that there does appear to have been a squeeze<br>20 on the independent farmers over the course of<br>21 the class period.<br>22 And, second, I'm aware of many<br>23 studies, including one that was issued by the<br>24 White House recently, suggesting that, in<br>25 fact, the packers are exercising buying power |
| Page 142<br><br>1 BY MR. COLEMAN:<br>2 Q. Yeah, I appreciate that<br>3 clarification.<br>4 So you would agree with respect to<br>5 the supply of hogs available, decisions about<br>6 how many hogs to produce rests with the<br>7 people who breed and farrow sows, right?<br>8 A. Yes, with the caveat, that some of<br>9 those people are packers themselves. So I<br>10 think you need to carve out those, and just<br>11 as you did with your prior questions, you had<br>12 asked me, you know, if the packers have<br>13 control over what the independents are<br>14 producing, and I would say yes, to the extent<br>15 that they can effectuate a price reduction<br>16 from those independents, they could -- they<br>17 could -- they could, in fact, influence how<br>18 much is being produced in the upstream<br>19 market.<br>20 Q. And specifically what packers had<br>21 the ability to materially -- materially control<br>22 the volume of hogs being produced in the<br>23 upstream market as you described it?<br>24 A. So -- so I think we have<br>25 identified through this Q&A two mechanisms | Page 142<br><br>1 in squeezing independent farmers in the<br>2 upstream market.<br>3 Q. Is that an allegation anywhere in<br>4 the complaint?<br>5 A. I don't think that it relates to<br>6 the complaint. You're asking me if I'm aware<br>7 of it, and I'm aware of such studies.<br>8 Q. Did you form any opinions about<br>9 that?<br>10 A. Not for the purpose of this<br>11 report. Not for the purpose of this report.<br>12 But I'm aware of authoritative sources saying<br>13 that that has, in fact, happened.<br>14 Q. Did you provide those as materials<br>15 relied upon?<br>16 A. Yes. I think that around<br>17 Figure 4, I cite a study that was recently<br>18 released by, I believe the White House. We<br>19 can go look around Figure 4 and Figure 5.<br>20 I don't know if I'm going to be<br>21 able to call up the site, but I do remember<br>22 that in my report about -- about agencies or<br>23 the White House recently investigating this<br>24 issue.<br>25 Q. And --   |

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| 1       (Simultaneous unreportable<br>2       crosstalk.)<br>3       A. I found it. I didn't mean -- but<br>4       it is in Footnote 18. That's the Brian Deese<br>5       study that came out of the White House.<br>6       BY MR. COLEMAN:<br>7 <b>Q. What page of your report are you</b><br>8 <b>looking at?</b><br>9       A. Page 10, Footnote 18.<br>10 <b>Q. And -- yeah. So tell us about</b><br>11 <b>this White House investigation on which</b><br>12 <b>you're relying. What years was that -- were</b><br>13 <b>they investigating?</b><br>14      A. Well, they were investigating the<br>15     past -- I mean, it just came out in September<br>16     of 2021. So they would be studying a period<br>17     that coincides with the class period and the<br>18     conduct period here.<br>19 <b>Q. Sure about that?</b><br>20      A. Yes.<br>21 <b>Q. And did you attempt to -- did you</b><br>22 <b>view that as challenged conduct --</b><br>23      A. No. I mean --<br>24 <b>Q. -- an exercise of monopsony power</b><br>25 <b>to squeeze independent pork producers?</b>  | Page 145<br><br>1       A. Well, they decide how much in<br>2       response to various market phenomenon,<br>3       including market prices, and if prices are<br>4       being artificially suppressed by packers with<br>5       buying power that could affect their decision<br>6       of how much to supply.<br>7       BY MR. COLEMAN:<br>8 <b>Q. My question was whether they make</b><br>9 <b>that decision as to how many barns to</b><br>10 <b>maintain or infrastructure for raising hogs.</b><br>11      That's the farmer's decision,<br>12      right?<br>13      A. Ultimately --<br>14      MR. RISSMAN: Objection.<br>15      A. Ultimately, they make the decision<br>16     in response to prevailing market conditions,<br>17     and to the extent that packers with buying<br>18     power can suppress prices below competitive<br>19     levels of the upstream market, that could<br>20     affect the decision by independent farmers as<br>21     to how much to produce.<br>22       BY MR. COLEMAN:<br>23 <b>Q. But they make the decision, right?</b><br>24       MR. RISSMAN: Same objection.<br>25       A. I mean, again, with the caveat  |
| Page 146<br><br>1       A. I don't think that that's part of<br>2       the challenged conduct, but you're asking me<br>3       if I thought the packers could wield any<br>4       influence as to production or output<br>5       decisions upstream, and the answer is yes.<br>6       And I've given you two mechanisms<br>7       by which they could do that.<br>8 <b>Q. But you have not formed any</b><br>9 <b>opinions as to whether they actually used</b><br>10 <b>monopsony power in this period, right?</b><br>11      A. I don't think that I formed<br>12     economic opinions. I just relayed the<br>13     research from the White House. And I -- and<br>14     in Figure 5, as you know, I show that the<br>15     spread that was being enjoyed by the packers<br>16     was growing over time, and if you compare it<br>17     to Figure 4, you can see part of that<br>18     enhanced spread came off the backs of the<br>19     farmers.<br>20 <b>Q. Do you -- independent producers</b><br>21 <b>decide how many barns and how much</b><br>22 <b>infrastructure for raising hogs they want to</b><br>23 <b>have on their farms, right?</b><br>24      MR. RISSMAN: Objection. Form.<br>25      Foundation. | Page 146<br><br>1       A. I don't think that that's part of<br>2       the challenged conduct, but you're asking me<br>3       if I thought the packers could wield any<br>4       influence as to production or output<br>5       decisions upstream, and the answer is yes.<br>6       And I've given you two mechanisms<br>7       by which they could do that.<br>8 <b>Q. But you have not formed any</b><br>9 <b>opinions as to whether they actually used</b><br>10 <b>monopsony power in this period, right?</b><br>11      A. I don't think that I formed<br>12     economic opinions. I just relayed the<br>13     research from the White House. And I -- and<br>14     in Figure 5, as you know, I show that the<br>15     spread that was being enjoyed by the packers<br>16     was growing over time, and if you compare it<br>17     to Figure 4, you can see part of that<br>18     enhanced spread came off the backs of the<br>19     farmers.<br>20 <b>Q. Do you -- independent producers</b><br>21 <b>decide how many barns and how much</b><br>22 <b>infrastructure for raising hogs they want to</b><br>23 <b>have on their farms, right?</b><br>24      MR. RISSMAN: Objection. Form.<br>25      Foundation. |

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| 1        But I seem to recall a table to<br>2 the same effect. And I don't think that I<br>3 distinguished between materially. I don't<br>4 even know if that means materially integrated<br>5 versus nonmaterially. I just did integrated.<br>6 BY MR. COLEMAN:<br>7        Q. Can you give me name? I think we<br>8 said Smithfield and Tyson had a sow, or<br>9 anybody else -- do you know whether any other<br>10 defendant is vertically integrated?<br>11      A. Well, let's go through Page 20<br>12 where I bullet out each of the defendants.<br>13      Q. Is that the extent of the<br>14 information you have about the vertically<br>15 integration of the defendants?<br>16      MR. RISSMAN: Object to form.<br>17      A. I don't -- I don't think it's the<br>18 extent because I seem to remember a table --<br>19 and I could be misremembering -- that tells<br>20 us which ones are vertically integrated. But<br>21 I know that in this summary on Page 20, I say<br>22 that -- yeah. I don't think that this is --<br>23 this is the place. I am reading 20 now.<br>24 BY MR. COLEMAN:<br>25      Q. Yeah. That's fine. So one -- one | Page 149<br><br>1 increments, so what's the time -- how<br>2 long have we been going in this<br>3 session?<br>4        MR. RISSMAN: Little less than<br>5 an hour 20.<br>6        THE WITNESS: Why don't we take<br>7 it to an hour and 30. Is that all<br>8 right? And we could just kind of<br>9 stick to the hour 30 on each session.<br>10      Is that all right?<br>11      MR. RISSMAN: It's fine with me.<br>12      Is that okay with you, Craig?<br>13      MR. COLEMAN: I'm fine with<br>14 that, and feel free to interrupt me<br>15 when you're ready.<br>16      THE WITNESS: I'm not keeping<br>17 time. But if someone were to tell me<br>18 we are at the 1:30 point on this tape,<br>19 that would be nice.<br>20      MR. RISSMAN: That's fine.<br>21 BY MR. COLEMAN:<br>22      Q. Let's have you turn to Tab 26.<br>23      MR. COLEMAN: And, Jacob, you<br>24 could pull that up on the screen.<br>25      And I've got to engage in the |
| Page 150<br><br>1 source of information if we wanted to know<br>2 the extent to which each defendant is<br>3 vertically integrated would be to look at<br>4 their hog acquisition data, right, to tell<br>5 how many hogs they acquired and from what<br>6 source?<br>7        A. Yeah, I think Agri Stats would<br>8 provide that in at least one of its reports.<br>9        Q. And do you know whether defendants<br>10 produced hog acquisition data in this case<br>11 themselves?<br>12      A. Well, I think that we have access<br>13 to all of the -- all of the Agri Stats<br>14 reports. And I think there are some reports<br>15 that are aimed at the upstream market, and<br>16 that's where I would go to try to get that<br>17 sort of information.<br>18      MR. RISSMAN: We have been going<br>19 another hour 20. Hal is on the<br>20 East Coast.<br>21      So I don't know how you feel<br>22 about lunch, Dr. Singer. If you want<br>23 to keep going or what you want to do.<br>24      THE WITNESS: Well, I think that<br>25 we should be moving in hour-and-a-half   | Page 150<br><br>1 same binder-flipping exercise that you<br>2 do.<br>3        MR. RISSMAN: This is 5?<br>4        MR. COLEMAN: I want to say 6.<br>5        Jacob, can you help us out?<br>6        THE VIDEOGRAPHER: It should be<br>7 6, sir.<br>8        (Exhibit 6 was marked for<br>9 identification.)<br>10 BY MR. COLEMAN:<br>11      Q. Dr. Singer, are you with us?<br>12      A. Yeah.<br>13      Q. So what's been marked as Exhibit 6<br>14 is a document created by the Pork Checkoff<br>15 with the title: Quick Facts. The Pork<br>16 Industry at a Glance.<br>17      Are you with me?<br>18      A. Yes.<br>19      Q. And are you familiar with Pork<br>20 Checkoff?<br>21      A. It's not ringing a bell, but I --<br>22 leave it at that.<br>23      Q. This was a document on which you<br>24 relied in your report, right?<br>25      A. You have to take me to -- I've got   |

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| 1    hundreds of documents.<br>2 <b>Q. Footnote 24.</b><br>3    A. What page, sorry?<br>4 <b>Q. Footnote 24.</b><br>5    A. Let me go look.<br>6       Yes, I cite it -- I cite it for<br>7    that proposition that: For decades, pigs<br>8    have been genetically bred to be leaner yet<br>9    heavier than their wild predecessors.<br>10 <b>Q. Did you read the report?</b><br>11    A. I think that for something like<br>12   this on the background section, that a<br>13   staffer would have read it and showed it to<br>14   me, and we would have decided whether or not<br>15   it was worthy of inclusion in the background<br>16   section.<br>17 <b>Q. Page 45 of the document --</b><br>18    MR. COLEMAN: Jacob, for your<br>19   benefit, I think it's 50 out of 134 of<br>20   the PDF.<br>21    MR. RISSLER: I'm sorry. What<br>22   page are you on, Craig?<br>23    MR. COLEMAN: I'm on Page 45,<br>24   referring to the numbered page of the<br>25   document.   | Page 153<br><br>1    Q. Right. And if that doesn't<br>2   happen, that's a major problem for producers,<br>3   right?<br>4       MR. RISSLER: Object to form.<br>5       A. If -- if -- I mean, I'm going to<br>6   accept your hypothetical. I don't know how<br>7   it could happen, but it costs went up in a<br>8   competitively provided industry but prices<br>9   didn't go up -- I mean, it's counterfactual,<br>10   but I am just setting aside all the problems<br>11   with it.<br>12       If you're just asking me to assume<br>13   a vacuum, then, yes, I mean, that would be<br>14   bad for -- for producers.<br>15   BY MR. COLEMAN:<br>16       Q. In any case, the Pork Checkoff<br>17   board tells us that in 2008 was a period that<br>18   caused many producers extreme financial<br>19   distress, right?<br>20       MR. RISSLER: Objection.<br>21       Foundation.<br>22       A. That's what it says, yes.<br>23   BY MR. COLEMAN:<br>24       Q. And do you dispute that 2008 was a<br>25   period of extreme financial hardship for many  |
| Page 154<br><br>1       There we go. Guy Fieri is a<br>2   helpful reference point.<br>3   BY MR. COLEMAN:<br>4 <b>Q. So in 2008, the Pork Checkoff</b><br>5   tells us that: Historically unprecedented<br>6   high feed costs led to one of the most<br>7   challenging times in the history for pork<br>8   producers. The blow, softened only by<br>9   record-high market hog prices, caused many<br>10   producers extreme financial distress.<br>11 <b>Do you see that?</b><br>12       A. Yes. And it makes me excited that<br>13   I controlled for the cost of rearing a pig in<br>14   my regression.<br>15 <b>Q. Yeah. Notwithstanding higher</b><br>16 <b>prices that year, it was a period of extreme</b><br>17 <b>financial distress for producers, right?</b><br>18       A. It actually says the opposite. It<br>19   says that prices went up to accommodate those<br>20   higher costs, which is what I'm hoping my<br>21   cost variable, at least in part, has<br>22   captured.<br>23       So this episode shows that when<br>24   costs go up, prices go up in the upstream<br>25   market. | Page 154<br><br>1       pork producers?<br>2       A. I don't have a reason to dispute<br>3   it.<br>4 <b>Q. And if we go to the next page,</b><br>5 <b>Page 46, there's a reference to: Beginning</b><br>6 <b>in April of 2009: News coverage of H1N1 or</b><br>7 <b>swine flu, as it was erroneously referred to</b><br>8 <b>by the media, added to an already challenging</b><br>9 <b>economic time for producers. It was</b><br>10 <b>estimated that producers lost more than</b><br>11 <b>\$2 billion after the outbreak of H1N1.</b><br>12 <b>Do you see that?</b><br>13       A. Yes. And it also makes me excited<br>14   that I controlled for H1N1 with a new dummy<br>15   variable.<br>16 <b>Q. Yeah. And your testimony was that</b><br>17 <b>it was a counterfactual scenario where</b><br>18 <b>producers would be faced with increasing</b><br>19 <b>costs but lowering prices. But the reality</b><br>20 <b>is that's exactly what happened, isn't it?</b><br>21       A. I don't see how you get that from<br>22   that bullet in 2009. All it says is that --<br>23   is that they lost more than 2 billion after<br>24   the outbreak of H1N1.<br>25       You're asking if that was an |

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| <p style="text-align: right;">Page 157</p> <p>1 episode in which prices went below cost?</p> <p>2     <b>Q. Do you know whether the swine flu</b></p> <p>3 <b>lowered demand for US pork and ultimately</b></p> <p>4 <b>domestic hogs?</b></p> <p>5     A. Yes, I do know.</p> <p>6     <b>Q. And do you know whether that</b></p> <p>7 <b>reduction in demand for US pork and US hogs</b></p> <p>8 <b>resulted in prices for market hogs declining?</b></p> <p>9     A. That I haven't studied. I haven't</p> <p>10 studied that, but it's a reasonable</p> <p>11 inference.</p> <p>12     <b>Q. And do you have any basis to</b></p> <p>13 <b>dispute that producers lost more than</b></p> <p>14 <b>\$2 billion in this time period?</b></p> <p>15     A. No, but it -- again, it's</p> <p>16 something that I controlled for explicitly in</p> <p>17 my model with an H1N1 dummy variable.</p> <p>18     <b>Q. In an environment in which hog</b></p> <p>19 <b>producers are collectively losing \$2 billion,</b></p> <p>20 <b>you as an economist would expect production</b></p> <p>21 <b>to decrease, right?</b></p> <p>22     MR. RISSMAN: Object to form.</p> <p>23     Incomplete hypothetical.</p> <p>24     A. I don't know if they would be able</p> <p>25 to turn down the production that quickly, but</p> | <p style="text-align: right;">Page 159</p> <p>1 would move together.</p> <p>2         And I think that in 2009, it</p> <p>3 appears in this bullet that costs and prices</p> <p>4 may have diverged. In which case, I'm glad</p> <p>5 that I controlled for some special</p> <p>6 circumstance in 2009 with the H1N1 variable.</p> <p>7     <b>Q. And you -- I think I took from</b></p> <p>8 <b>your previous answer that you don't dispute</b></p> <p>9 <b>that you would expect hog production to</b></p> <p>10 <b>decrease in an environment in which hog</b></p> <p>11 <b>producers were collectively losing</b></p> <p>12 <b>\$2 billion; is that right?</b></p> <p>13     MR. RISSMAN: Object to form and</p> <p>14 incomplete hypothetical.</p> <p>15     A. I think that if there were a</p> <p>16 permanent reduction in profitability</p> <p>17 upstream, that could be associated with a</p> <p>18 decline in upstream production. I will grant</p> <p>19 you that.</p> <p>20         If the H1N1 catastrophe was</p> <p>21 short-lived, then it's possible that</p> <p>22 production wasn't able to react in sufficient</p> <p>23 time.</p> <p>24 BY MR. COLEMAN:</p> <p>25     <b>Q. If we flip to Page 81 of the</b></p>   |
| <p style="text-align: right;">Page 158</p> <p>1 it's a reasonable inference that production</p> <p>2 could have decreased upstream.</p> <p>3     <b>Q. There could be some --</b></p> <p>4         (Reporter clarification.)</p> <p>5     MR. RISSMAN: Sorry. Did the</p> <p>6 witness finish his answer?</p> <p>7     THE WITNESS: No, I can wait.</p> <p>8     It's fine.</p> <p>9 BY MR. COLEMAN:</p> <p>10     <b>Q. I didn't mean to interrupt. I</b></p> <p>11 <b>thought you were done.</b></p> <p>12     <b>So if you have something to add,</b></p> <p>13 <b>go ahead.</b></p> <p>14     A. No. Just that this is why it was</p> <p>15 important to include a new dummy variable for</p> <p>16 the existence of the H1N1 virus.</p> <p>17     <b>Q. What you didn't control for was</b></p> <p>18 <b>the profitability of -- for producers of</b></p> <p>19 <b>raising hogs, right?</b></p> <p>20     A. I would say that I didn't control</p> <p>21 for that explicitly, but I do have the cost</p> <p>22 of the producers as a control variable, and I</p> <p>23 think in normal circumstances, outside of an</p> <p>24 H1N1 virus that scared people off of pork</p> <p>25 temporarily, I think that costs and prices</p>   | <p style="text-align: right;">Page 160</p> <p>1 document; go to the top of page. We have a</p> <p>2 nice picture of Dr. Meyer.</p> <p>3         It says: For America's pork</p> <p>4 producers, 2008 and 2009 were among the most</p> <p>5 difficult years ever. In fact, the combined</p> <p>6 losses incurred by producers in 2008 and 2009</p> <p>7 exceeded the previously worst two-year period</p> <p>8 on record, 1998 and 1999.</p> <p>9         By the end of 2009, US pork</p> <p>10 producers have lost money in 24 of the last</p> <p>11 26 months amounting to nearly \$6 billion.</p> <p>12         Do you see that?</p> <p>13     A. Yes.</p> <p>14     <b>Q. And you don't dispute the facts</b></p> <p>15 <b>that American pork producers lost \$6 billion</b></p> <p>16 <b>over that two-year time frame, right?</b></p> <p>17     A. I don't have anything to dispute</p> <p>18 it with here, but if you want, I can just</p> <p>19 accept that as being the best estimate.</p> <p>20     <b>Q. And, again, my question is, in</b></p> <p>21 <b>that kind of environment where pork producers</b></p> <p>22 <b>have lost money to the tune of \$6 billion</b></p> <p>23 <b>collectively, it wouldn't be unreasonable to</b></p> <p>24 <b>see reductions in sow herd, reductions on</b></p> <p>25 <b>number of hogs on farms and a reduction in</b></p> |

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| Page 161  | Page 163   |
| <p>1 the supply of hogs generally?</p> <p>2 MR. RISSMAN: Object to form and</p> <p>3 incomplete hypothetical.</p> <p>4 A. It's certainly possible that that</p> <p>5 happened, but that's precisely what would be</p> <p>6 controlled for by my dummy variable for H1N1.</p> <p>7 That's to say if there was a unique set of</p> <p>8 circumstances that upset the relevant market,</p> <p>9 the pork processing market, you would want to</p> <p>10 control for that, and I did.</p> <p>11 BY MR. COLEMAN:</p> <p>12 Q. And, again, this brings us to the</p> <p>13 but-for world. So absent the challenged</p> <p>14 conduct, the existence of an alleged</p> <p>15 conspiracy, how much would the sow herd have</p> <p>16 been reduced in this environment where US</p> <p>17 pork producers lost \$6 billion over a</p> <p>18 two-year period?</p> <p>19 MR. RISSMAN: Objection. Asked</p> <p>20 and answered.</p> <p>21 A. To the extent that H1N1 virus</p> <p>22 upset supply, then an economist would want to</p> <p>23 control for that in a regression model, and</p> <p>24 that's precisely what I've done; that is, you</p> <p>25 cannot allege that my model is misattributing</p> | <p>1 instruction.</p> <p>2 A. I perform an output effect that</p> <p>3 turns from a challenged conduct -- on the</p> <p>4 challenged conduct, and I have not decomposed</p> <p>5 it across the various ways in which output</p> <p>6 was suppressed.</p> <p>7 MR. COLEMAN: I think we have</p> <p>8 gone 10, 15 minutes. Why don't we</p> <p>9 pause there.</p> <p>10 MR. RISSMAN: Okay.</p> <p>11 THE VIDEOGRAPHER: Time is</p> <p>12 12:54 p.m. We are going off the</p> <p>13 record.</p> <p>14 (A lunch recess was held from</p> <p>15 12:54 p.m. to 1:41 p.m.)</p> <p>16 THE VIDEOGRAPHER: The time is</p> <p>17 1:41 p.m. We are back on the record.</p> <p>18 BY MR. COLEMAN:</p> <p>19 Q. Dr. Singer, did you discuss the</p> <p>20 substance of your testimony with counsel</p> <p>21 during the lunch break or any other break?</p> <p>22 A. Now I'm trying to remember what we</p> <p>23 discussed. I think we discussed where I was</p> <p>24 going to eat, but I think that nothing of</p> <p>25 substance, no. Like, how are you doing? Do</p> |
| Page 162  | Page 164   |
| <p>1 the price inflation that we are seeing during</p> <p>2 the conduct to the H1N1. I am already</p> <p>3 controlling for it.</p> <p>4 BY MR. COLEMAN:</p> <p>5 Q. That wasn't my question.</p> <p>6 My question was, in the but-for</p> <p>7 world, how much would producers have</p> <p>8 decreased the sow herd given the financial</p> <p>9 losses that they were incurring in this time</p> <p>10 period?</p> <p>11 MR. RISSMAN: Objection. And</p> <p>12 I'm going to instruct the witness that</p> <p>13 if he has an opinion on that he can</p> <p>14 give it, but if he doesn't -- hasn't</p> <p>15 performed that analysis, he shouldn't</p> <p>16 give an opinion.</p> <p>17 A. I haven't performed a</p> <p>18 decomposition of the output effect attributed</p> <p>19 to the challenged conduct and to nothing</p> <p>20 else.</p> <p>21 BY MR. COLEMAN:</p> <p>22 Q. And the same answer is true with</p> <p>23 respect to number of farrowings or number of</p> <p>24 hogs being raised on farms, right?</p> <p>25 MR. RISSMAN: Same objection and</p>  | <p>1 you feel all right? And stuff like that.</p> <p>2 Q. Before lunch, we were in the Pork</p> <p>3 Checkoff document, Exhibit 6.</p> <p>4 A. Okay.</p> <p>5 Q. And we are on Page 81 of the</p> <p>6 document.</p> <p>7 MR. COLEMAN: And, Jacob, if you</p> <p>8 could just get the profit and losses</p> <p>9 table on the screen.</p> <p>10 BY MR. COLEMAN:</p> <p>11 Q. Dr. Singer, do you understand that</p> <p>12 the profit and losses table here, the Iowa</p> <p>13 farrow-to-finish hog operations, is a</p> <p>14 graphical depiction of their relative</p> <p>15 profitability of hog farms?</p> <p>16 A. That's what it reports to show,</p> <p>17 yes.</p> <p>18 Q. And if we look at the period of</p> <p>19 2009 to 2010, that appears to be -- those</p> <p>20 appear to be years in which there were a</p> <p>21 significant -- a period of significant</p> <p>22 unprofitability for those hog operations,</p> <p>23 right?</p> <p>24 A. Well, it goes back up. So there's</p> <p>25 oscillation just over time. There's periods</p>    |

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| 1 of large profits and they go through bad<br>2 periods and they go through large profits<br>3 again. It seems like that pattern repeats<br>4 itself over time.<br><br>5 Q. Yeah. And I think that's a fair<br>6 point.<br><br>7 Are you familiar with the concept<br>8 of the hog cycle?<br>9 A. I have come across it. I don't<br>10 know if I can give you a definition realtime.<br><br>11 Q. And are you familiar with the<br>12 concept as reflected in the chart we are<br>13 looking at, that there's a longstanding cycle<br>14 in which we have oscillations from<br>15 unprofitability to profitability for hog<br>16 operations?<br>17 A. Yes.<br><br>18 Q. Are you familiar with that?<br>19 A. Yes.<br><br>20 Q. And are you familiar with the<br>21 reality in periods of profitability, hog<br>22 farmers tend to expand production, and in<br>23 periods of unprofitability, they tend to<br>24 contract?<br>25 MR. RISSMAN: Object to form.   | Page 165<br><br>1 to be correlated. And then when I look back<br>2 prior to that, when our conduct variable is<br>3 equal to zero, it's also not going to be<br>4 correlated.<br>5 There is periods where it's<br>6 profitable, and it goes unprofitable, as you<br>7 say. So I don't think that this is going to<br>8 explain away the effect that we are capturing<br>9 in the conduct period.<br><br>10 Q. I didn't ask that question. I<br>11 didn't offer a theory. I just asked whether<br>12 you're familiar with the fact that over a<br>13 period of decades, there is something called<br>14 a hog cycle in which there are periods of<br>15 unprofitability and hog farmers expand and<br>16 periods -- I am sorry, periods of<br>17 unprofitability in which they can track and<br>18 periods of profitability in which hog farmers<br>19 tend to expand.<br><br>20 Are you familiar with that or not?<br>21 MR. RISSMAN: Object to form.<br>22 A. Not the --<br>23 MR. RISSMAN: Hold on. Hold on.<br>24 Object to form. Incomplete<br>25 hypothetical.    |
| Page 166<br><br>1 Overbroad and incomplete hypothetical.<br>2 A. I'm not necessarily familiar with<br>3 the expansion and contraction, but I will<br>4 leave it at that.<br>5 BY MR. COLEMAN:<br>6 Q. Is that something you studied or<br>7 accounted for?<br>8 A. Well, I certainly accounted for<br>9 what was going on in the upstream market in<br>10 two ways in my progression model. And what<br>11 these profitability figures are showing me,<br>12 big losses in '09 and big gains in '10, that<br>13 seems to suggest that profitability is not<br>14 going to be correlated with the challenged<br>15 conduct, right.<br>16 So I think the theory -- the<br>17 alternative theory that you're offering is<br>18 that I omitted some -- some variable<br>19 profitability that would explain the price<br>20 increases that we observed during the class<br>21 period and just from what -- what I've seen,<br>22 you haven't shown me the full time series.<br>23 But the fact that you've got<br>24 losses in '09 and big gains in '10, tells me,<br>25 at least for those two years, it's not going | Page 166<br><br>1 A. Not the expansion and contraction<br>2 part, but I do have some familiarity with the<br>3 idea that profitability goes in waves. So I<br>4 will give you that part of it.<br>5 I don't see evidence right here<br>6 that production upstream could be explained<br>7 with variations in profitability. It's<br>8 possible. But you haven't established that<br>9 through this exhibit.<br>10 BY MR. COLEMAN:<br>11 Q. Sure. Would that surprise you if<br>12 producers respond to the relative<br>13 profitability of their operation by expanding<br>14 or contracting?<br>15 MR. RISSMAN: Object to form.<br>16 A. I think -- I think they might try<br>17 to do that, but, you know, I would want to<br>18 see evidence that those things are<br>19 correlated, but even if they were, I don't<br>20 think I'm missing anything in my regression<br>21 level.<br>22 Q. If we turn to Page 93. Yeah,<br>23 right up there. US Breeding Herd, Quarterly.<br>24 Have you examined the general --<br>25 what's happened to the quantity of sows in |

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| Page 169   | Page 171   |
| <p>1 the breeding herd in the United States over<br/>2 time?</p> <p>3 A. No. I have not examined that.</p> <p>4 I'm looking at the phenomenon in the relevant<br/>5 market.</p> <p>6 Q. Well, one of the allegations in<br/>7 the complaint that you address is a reduction<br/>8 in the sow breeding herd, right?</p> <p>9 A. Among defendants, yes, that's an<br/>10 allegation in the complaint. But I took your<br/>11 question to mean have I been studying<br/>12 upstream production at large across all<br/>13 providers -- to independents over time, and I<br/>14 have not done that.</p> <p>15 Q. And one thing we see from looking<br/>16 at that chart is that there's a longstanding<br/>17 reduction going back to the mid-'90s in the<br/>18 size of the US breeding herd, right?</p> <p>19 A. Yes, I will grant you that the<br/>20 blue line, which is not labeled here, but I<br/>21 presume that's quarterly breeding herd --<br/>22 they've labeled the orange line but not the<br/>23 blue line.</p> <p>24 You want to me the assume that the<br/>25 blue line is quarterly breeding herd?</p> | <p>1 If we look at that period through<br/>2 about 2008, the breeding herd was expanding,<br/>3 right?</p> <p>4 A. Yeah. But still below its<br/>5 long-term historical high. You're saying<br/>6 there is a slight upturn in '04, '05, I will<br/>7 grant you that. But you're still well below<br/>8 where it was, you know, in the early '90s.</p> <p>9 Q. So how does your model account for<br/>10 the long-term reduction in the size of the<br/>11 swine breeding herd?</p> <p>12 A. Right. So if there's a trend like<br/>13 this that is secular and occurring throughout<br/>14 the data period, the period that we study,<br/>15 then a linear time trend is going to capture<br/>16 the effect of such trends.</p> <p>17 Q. But your data period dates to<br/>18 2005, not to the early '90s, right?</p> <p>19 A. I would have to go back and check<br/>20 when it goes. But the data period from<br/>21 '05 -- what you're not showing me is what the<br/>22 US breeding herd looks like past 2009. And<br/>23 to the extent, I will say that, that the<br/>24 trend is a linear trend -- linear downward,<br/>25 that would be ticked up by the time trends.</p> |
| Page 170   | Page 172   |
| <p>1 Q. Let's look at the chart on the<br/>2 right where it says, US breeding herd,<br/>3 quarterly.</p> <p>4 A. Okay.</p> <p>5 Q. And that reflects that dating to<br/>6 the mid-'90s, there's a significant reduction<br/>7 over time in the size of the sow breeding<br/>8 herd, right?</p> <p>9 A. Yeah. And a trend that looks like<br/>10 that would be captured in my time trend,<br/>11 right. So -- so to the extent it continues<br/>12 doing that, then I feel comfortable that my<br/>13 model would have accommodated that trend.</p> <p>14 Q. I'm surprised by that because, as<br/>15 I understand it, your model measures a before<br/>16 period of -- well, how many years before<br/>17 2009?</p> <p>18 A. I think the data goes back -- I<br/>19 would have to check to see when the beginning<br/>20 of the data runs. I would have to go check<br/>21 in the regression section how far it goes<br/>22 back. Several years.</p> <p>23 Q. And what we see when looking at<br/>24 the data, is that there was an uptick in the<br/>25 breeding herd dating to 2004, 2005.</p>                     | <p>1 Q. And do you have any understanding<br/>2 as to the reasons for a long-term reduction<br/>3 in the US sow breeding herd?</p> <p>4 A. I think that the White House<br/>5 report might offer the notion that if<br/>6 independent farmers are being squeezed by<br/>7 packers with significant buying power, that<br/>8 could result in a reduction in output.</p> <p>9 Q. Any other reasons come to mind as<br/>10 to why the sow herd would have been steadily<br/>11 reducing over time?</p> <p>12 MR. RISSMAN: Objection.<br/>13 Foundation.</p> <p>14 A. No. Sitting here, I don't know if<br/>15 I can give you other reasons.</p> <p>16 BY MR. COLEMAN:</p> <p>17 Q. If producers are able to produce<br/>18 fewer gains and efficiency, genetic feed or<br/>19 whatever, more piglets per sow, then it would<br/>20 be economically prudent to reduce the number<br/>21 of sows while still expanding production,<br/>22 right?</p> <p>23 MR. RISSMAN: Object to form.<br/>24 And calls for incomplete hypothetical.</p> <p>25 A. Yeah. I don't think I could</p>  |

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| 1 answer that. I think that's outside the<br>2 scope of economists. You'd want to ask<br>3 probably a farmer that.<br>4 BY MR. COLEMAN:<br><b>5 Q. Or an agricultural economist,</b><br><b>6 right?</b><br>7 A. No, these are the things that --<br>8 you wouldn't go to an economist for the<br>9 technical explanations of how breeding works.<br>10 You want to go to a technical expert.<br><b>11 Q. In any case, if we look at the</b><br><b>12 long-term trendline from the mid-'90s to the</b><br><b>13 end of the graph -- we'll say at the end of</b><br><b>14 2009, 2010, in that range, we would expect</b><br><b>15 some reduction if that trend continues in the</b><br><b>16 sow herd in subsequent years, right?</b><br>17 MR. RISSMAN: Objection.<br>18 Hypothetical.<br>19 A. It's possible that that trend<br>20 persisted. And as I said before, if it did,<br>21 that would be the kind of phenomena that<br>22 would be captured by the linear time frame.<br>23 BY MR. COLEMAN:<br><b>24 Q. To the extent you looked at data</b><br><b>25 covering that full time period, right?</b>  | Page 173 | Page 175<br>1 date of the preperiod. So let's keep the<br>2 record straight.<br>3 But it looks like we have data<br>4 going back to January 1, 2005.<br><b>5 Q. Right. And so your data did not</b><br><b>6 account for that long-term trend dated in the</b><br><b>7 mid-'90s of the sow herd being reduced,</b><br><b>8 right?</b><br>9 A. Well, it's inappropriate and<br>10 uneconomic for you to say such a thing. The<br>11 data period does not cover that earlier<br>12 period, so to say it's not accounting for it<br>13 is just nonsensical.<br>14 I account for phenomena that moved<br>15 prices around over the period I studied.<br><b>16 Q. And the period you studied was</b><br><b>17 2005 going forward, right?</b><br>18 A. Correct.<br><b>19 Q. Fundamentally, your model controls</b><br><b>20 for certain variables that affect the supply</b><br><b>21 and demand for pork, right?</b><br>22 A. Correct. In the relevant<br>23 market -- in the relevant processing market,<br>24 correct.<br><b>25 Q. And you view that the hog market</b>   |
| 1 A. We know what data I looked at,<br>2 right. So you're asking if I assume that it<br>3 continued a downward trend from 2009 onward.<br>4 I think our data went through something like<br>5 2020. Then that linear trend would be<br>6 captured by the time trend.<br><b>7 Q. That's actually not what I'm</b><br><b>8 asking. Your data does not predate 2005,</b><br><b>9 does it?</b><br>10 A. I think you might be right. I<br>11 need to go back and check the initial period<br>12 and how we define the preperiod. I think<br>13 you're right, but I just would want to go<br>14 into the regression section and see the exact<br>15 start date of the regression data.<br>16 If you want, I can go get that for<br>17 you.<br><b>18 Q. Well, yeah. I think you should do</b><br><b>19 that. I mean, as I understand it, your model</b><br><b>20 is built on a comparison of a before period,</b><br><b>21 comparing that to the conspiracy period. So,</b><br><b>22 again, surprised that you don't know what the</b><br><b>23 before period is.</b><br>24 A. No, no, no. I know what the<br>25 period is. I don't know the precise start | Page 174 | Page 176<br>1 <b>is not part of the relevant market?</b><br>2 A. Absolutely not. It's a related<br>3 market. It's the upstream market. It's a<br>4 separate market, and I do control for certain<br>5 phenomena that are occurring up there, but my<br>6 aim -- the objective of the model is to<br>7 isolate the effect of the challenged conduct<br>8 on prices that direct and indirect consumers<br>9 paid in this antitrust litigation.<br><b>10 Q. So you include variables that</b><br><b>11 control for hog costs, processing costs,</b><br><b>12 demand, trends over time, right?</b><br>13 A. You have just given an incomplete<br>14 list. We could go to all the variables that<br>15 I got. But what I'm trying to do is capture<br>16 the supply and demand phenomena in the<br>17 relevant processing market.<br><b>18 Q. So what I want to understand is</b><br><b>19 whether your model effectively means that any</b><br><b>20 other price increase is not correlated with</b><br><b>21 one of the control variables as defined by</b><br><b>22 you to be challenged conduct?</b><br>23 A. I didn't understand that. Let's<br>24 say it -- let's say it back. Sorry. I just<br>25 didn't follow what you're saying. |

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| Page 177   | Page 179   |
| <p>1 Q. Yeah. Is the implication of your<br/>2 model that any price increases that occurred<br/>3 during the class period not correlated with<br/>4 one of your control variables is defined by<br/>5 you to be challenged conduct?</p> <p>6 A. No. That's not how I put it.</p> <p>7 Q. How would you put it?</p> <p>8 A. I would say what the model is<br/>9 trying do is to isolate the inflation in<br/>10 prices that can be attributed to the<br/>11 challenged conduct by using a benchmark of a<br/>12 clean preperiod controlling for all other<br/>13 factors that could have influenced prices<br/>14 over the data window.</p> <p>15 Q. Are you familiar with the concept<br/>16 of packer margins?</p> <p>17 A. Well, I know what a packer margin<br/>18 is. If you're asking what margin the packers<br/>19 were earning...</p> <p>20 Q. What is a packer margin?</p> <p>21 A. Well, as I'm hearing you describe<br/>22 it, margin has a very precise meaning in<br/>23 economics, which is the difference between<br/>24 the price and the cost, and you're asking for<br/>25 packer. So that would be the margin for</p> | <p>1 yields a certain set of primals, the belly,<br/>2 the shoulders, butts, et cetera, right?</p> <p>3 A. I haven't heard a question yet,<br/>4 but --<br/>5 (Simultaneous unreportable<br/>6 crosstalk.)</p> <p>7 Q. I just want to make sure you<br/>8 follow me.</p> <p>9 When a packer slaughters a hog, it<br/>10 cuts it up into primals. That carcass<br/>11 yields, well, really, two of every primal,<br/>12 right?</p> <p>13 A. A what of every primal? I am<br/>14 sorry.</p> <p>15 BY MR. COLEMAN:</p> <p>16 Q. Two. You get two bellies, two<br/>17 ribs, two shoulders, two butts, right?</p> <p>18 A. Okay. I will accept that's the<br/>19 number you get when you cut it up. I don't<br/>20 know if I've come across that yet, but go<br/>21 ahead.</p> <p>22 Q. You don't know what a hog carcass<br/>23 produces?</p> <p>24 A. I mean, I've got pictures<br/>25 depicting what the hog carcass produces, but</p>   |
| Page 178   | Page 180   |
| <p>1 packers.</p> <p>2 Q. Okay. Are you familiar with<br/>3 industry term -- industry usage of the term<br/>4 "packer margins"?</p> <p>5 MR. RISSMAN: Object to form.</p> <p>6 A. Packer margins, you mean?</p> <p>7 BY MR. COLEMAN:</p> <p>8 Q. Yes.</p> <p>9 A. It's possible I've come across<br/>10 that term. And I have given you what my<br/>11 understanding is as you have just described<br/>12 it.</p> <p>13 Q. So if we are just relying on your<br/>14 definition of packer margins, if they're<br/>15 negative, it's economically reasonable for a<br/>16 processor to cut back its production, right?</p> <p>17 MR. RISSMAN: Object to form.</p> <p>18 Incomplete hypothetical.</p> <p>19 A. And I would say not necessarily.</p> <p>20 BY MR. COLEMAN:</p> <p>21 Q. If a packer can purchase primals,<br/>22 so we add up all the -- you understand what<br/>23 primals are?</p> <p>24 A. Yes.</p> <p>25 Q. And if we add up -- a carcass</p>  | <p>1 I haven't stated it as two of each, but we<br/>2 are symmetric animals, so that follows.</p> <p>3 Q. Right. You get one snout and one<br/>4 tail, but other than that, when it comes to<br/>5 primals, there's two of the primals on each<br/>6 hog that's slaughtered, right?</p> <p>7 A. Okay.</p> <p>8 Q. Not something that's occurred to<br/>9 you before, I gather?</p> <p>10 A. We haven't been -- I haven't --<br/>11 there's nowhere in my report that I discuss<br/>12 two of each. I just talk about units, but go<br/>13 ahead.</p> <p>14 Q. If a -- and you understand that<br/>15 there's a market -- there's the buying and<br/>16 selling of primals that's distinct from a<br/>17 market for hogs that -- for market hogs that<br/>18 still need to be slaughtered, right?</p> <p>19 A. I don't understand the question.</p> <p>20 Q. Do you know, for example, whether<br/>21 my client Hormel, in addition to harvesting<br/>22 hogs, also purchases primals?</p> <p>23 A. So are you asking, again, that --<br/>24 the fact that some processors are both -- are<br/>25 vertically integrated in the sense that</p> |

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| Page 181   | Page 183  |
| <p>1 they're making the hogs themselves upstream<br/>2 and also buying them?</p> <p>3 Q. No. I'm asking whether you -- I<br/>4 mean, you're aware that Hormel, for example,<br/>5 buys hogs to slaughter and run through its<br/>6 plant, right?</p> <p>7 A. Yes.</p> <p>8 Q. Are you aware that it also goes<br/>9 out and buys primals that have already been<br/>10 slaughtered and cut up into primals by other<br/>11 packers?</p> <p>12 A. They might do that, but that's not<br/>13 something I studied. I'm looking at the<br/>14 defendant sales data when they're the<br/>15 processor.</p> <p>16 Q. And my question, again, was<br/>17 whether you're aware of there being a market<br/>18 for hogs ready to slaughter that's distinct<br/>19 from a market for primals?</p> <p>20 A. No, I don't make that distinction<br/>21 in my report. That's not how I define the<br/>22 relevant market.</p> <p>23 Q. If a packer like Hormel is in the<br/>24 position of being able to buy primals for<br/>25 cheaper than the price of a market hog, it</p>                                | <p>1 months prior.<br/>2 Is that what you're asking about?<br/>3 Q. Yeah. Right. Yeah. And that's a<br/>4 good clarification. And we should start<br/>5 there.<br/>6 So, I mean, I think you recognize<br/>7 that PDV [sic] was a significant industry<br/>8 event, and you made efforts to account for<br/>9 it, right?<br/>10 A. Correct, through the -- through<br/>11 the pig loss ratio rate, and we also -- the<br/>12 piglet loss rate, and we also provide in the<br/>13 bottom of 119 as to why we lagged it. It's<br/>14 roughly the time it takes for a pig to reach<br/>15 slaughter maturity.<br/>16 Q. Yeah. I am sorry. Was it<br/>17 Paragraph 119?<br/>18 A. Page 119, at the bottom.<br/>19 Q. Yeah. And why did you focus on<br/>20 piglet loss as the right metric?<br/>21 A. Well, we thought piglet loss could<br/>22 have an important power in explaining prices<br/>23 in the -- in the processing market. So we<br/>24 wanted to control for it, and we also thought<br/>25 the PVD virus manifested its way through the</p>  |
| Page 182   | Page 184  |
| <p>1 would make sense for Hormel or any other<br/>2 processor in that position to do that, right?</p> <p>3 MR. RISSMAN: Object to form.<br/>4 Incomplete hypothetical.<br/>5 A. Yeah. I don't have an opinion<br/>6 there. It's not something I studied.<br/>7 BY MR. COLEMAN:<br/>8 Q. What's a lag variable?<br/>9 A. A lag variable is that if you want<br/>10 to allow for the possibility that the effect<br/>11 of a variable doesn't occur in the instant<br/>12 period but instead occurs in some future<br/>13 period, you would use a lag effect.<br/>14 Q. And why did you apply a lag<br/>15 variable to PVD?<br/>16 A. Because we think that that best<br/>17 explains the data. That we don't see the<br/>18 effect of the PVD until -- until a later<br/>19 period. I would have to go back and see if<br/>20 I've given a basis here.<br/>21 Strike that. We -- we are<br/>22 using -- for that virus, we are using the<br/>23 pork -- the pig mortality rate. We don't<br/>24 have a separate variable for that -- for that<br/>25 virus. We just have pig loss rate of six</p> | <p>1 piglet loss rate, so that would be a fine way<br/>2 to put -- to account for it.<br/>3 Q. You aware of any other impacts of<br/>4 PVD other than the piglet loss rate?<br/>5 A. No, I'm not.<br/>6 Q. And then coming back to the lag<br/>7 variable, so we've got -- if you're<br/>8 accounting for -- you're controlling for PVD,<br/>9 you're focusing on piglet loss, explain why<br/>10 it would be important to apply a lag variable<br/>11 to piglet -- piglet loss numbers.<br/>12 A. Oh, so as I say, you wouldn't<br/>13 expect to see any price effect for six months<br/>14 because that's the time it takes for a pig to<br/>15 reach slaughter maturity. So if you went<br/>16 looking a price effect as soon as the piglet<br/>17 loss rate changed, you might not see it.<br/>18 And my understanding is that we<br/>19 tried it, you know, both in contemporaneous<br/>20 and in lag terms, and the lag term did a<br/>21 better job explaining variational data.<br/>22 Q. So you thought based on your<br/>23 analysis, that was the appropriate way to<br/>24 account for PVD, was to lag that -- the fact<br/>25 of piglet mortality?</p> |

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| 1       A. Well, I wouldn't quite put it that<br>2 way. I would say that the piglet loss rate<br>3 is accounting for more than just the PVD<br>4 virus, but it also accounts for the PVD<br>5 virus. So we didn't think a separate new<br>6 dummy variable was needed.<br><br>7 <b>Q. Yeah. And I'm interested</b><br>8 <b>specifically in the decision to lag the</b><br>9 <b>impact. That's routed in the biology of the</b><br>10 <b>pigs?</b><br><br>11      A. Not only the biology of the pig<br>12 but also in explanatory power of the data.<br>13 So you could go back and you can remove the<br>14 lag and just use the contemporaneous pig loss<br>15 rate, right, and see which one does a better<br>16 job explaining variation prices.<br><br>17 <b>Q. Got it. So in your mind, the --</b><br>18 <b>applying the lag variable is the better way</b><br>19 <b>to explain the impact of PVD?</b><br><br>20      A. No. That's not what I'm saying.<br>21 I'm saying the lag variable is the better way<br>22 to explain the piglet loss rate. And I'm<br>23 capturing the PVD virus through the piglet<br>24 loss rate variable.<br><br>25      You keep saying it as if the PVD                                       | Page 185<br><br>1 those bases.<br>2 <b>Q. And that's -- that's what --</b><br>3 <b>that's what you found here, was that it had</b><br>4 <b>better explanatory power if you lagged the</b><br>5 <b>impact?</b><br>6       A. That's my understanding, yes.<br>7 <b>Q. Coming back for the -- the concept</b><br>8 <b>of there being a marketplace for primals, and</b><br>9 <b>ultimately -- is that, in your mind, an</b><br>10 <b>upstream market, or is that part of the same</b><br>11 <b>market?</b><br>12      A. Well, I'm looking at defendants'<br>13 sales data, where they served as the<br>14 processor, and I think what you're asking is<br>15 what happens when some other party serves as<br>16 the processor. And sitting here, it sounds<br>17 like that would not be captured in our<br>18 database.<br>19       It's conceivable it is, but I<br>20 would want to run that down. It is something<br>21 that -- it sounds like from your description<br>22 if they're not -- if they're not processing<br>23 it, I'd just query whether or not that's<br>24 going to be contained in our data.<br><br>25 <b>Q. So you recognize that a</b>   |
| Page 186<br><br>1 virus was the only thing that I had in mind<br>2 when using and constructing this series.<br>3 It's not.<br><br>4 <b>Q. What else did you have in mind?</b><br>5 <b>And I'm honestly not trying to put</b><br>6 <b>words in your mouth or make any assumptions.</b><br>7 <b>I just want you to explain what you're doing</b><br>8 <b>and why you picked the lag variable.</b><br><br>9 <b>So what other -- what else were</b><br>10 <b>you trying to account for other than PVD?</b><br><br>11      A. Oh, anything that changes the<br>12 piglet loss rate, right. So anything that<br>13 changes it could, in theory, have an effect<br>14 on prices in the relevant market. I wanted<br>15 to control for that.<br><br>16 <b>Q. Okay. So -- but if you want to</b><br>17 <b>understand the impact of piglet loss on</b><br>18 <b>market prices, then it would be important to</b><br>19 <b>lag the effect based on the biology of the</b><br>20 <b>pig?</b><br><br>21      A. I think that's one basis, but a<br>22 second basis is whether or not it does a<br>23 better job explaining variation in the<br>24 pricing data in the relevant market than the<br>25 unlagged, and so I want to look at both of | Page 188<br><br>1 <b>defendant's decision to export pork products</b><br>2 <b>is not in itself evidence of a conspiracy,</b><br>3 <b>right?</b><br>4       A. I think that -- if that's all you<br>5 had, and the decision was unilaterally made,<br>6 you know, that would not constitute the basis<br>7 of an antitrust theory of harm.<br>8 <b>Q. Yeah. In fact, a decision to</b><br>9 <b>export products can be perfectly rational and</b><br>10 <b>consistent with a competitive environment,</b><br>11 <b>right?</b><br>12      A. Well, divorced from all the facts<br>13 of the case and in a vacuum, it could. But<br>14 if we look at record evidence, including the<br>15 evidence I mentioned earlier about, I think,<br>16 direct communications between CEOs on the<br>17 question of exporting and whether or not it<br>18 would be beneficial to the industry, you<br>19 know, everything is in context.<br>20 <b>Q. Was that important to your</b><br>21 <b>analysis, that you believe there's been</b><br>22 <b>direct communications between defendant CEOs</b><br>23 <b>on exports?</b><br>24      A. Well, it's important enough to<br>25 make it into my export section. And it's |

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| <p style="text-align: right;">Page 189</p> <p>1 important in the sense that it substantiates<br/>2 part of the challenged conduct. I will leave<br/>3 it at that.</p> <p><b>4 Q. But coming back to whether it may<br/>5 be rational to export pork, it's not your<br/>6 opinion that all exports of pork in the class<br/>7 period were challenged conduct and unlawful,<br/>8 right?</b></p> <p>9 MR. RISSMAN: Object to form.</p> <p>10 A. Well, remember, I -- I don't<br/>11 consider exporting in the abstract to be a<br/>12 restraint that is being challenged here. I<br/>13 think that exporting, as I said many times<br/>14 now, is one of several levers or mechanisms<br/>15 by which domestic output was reduced.</p> <p>16 But I think that there's record<br/>17 evidence that's consistent with plaintiff's<br/>18 claims that the decision to export was made<br/>19 on a coordinated basis. And just, you know,<br/>20 sitting here, I could go through my report --<br/>21 I can spare you the pain, but we talk about<br/>22 communications between CEOs regarding<br/>23 exporting activity and also, you know, the<br/>24 Agri Stat export report itself was allowing<br/>25 the defendants to coordinate in their</p> | <p style="text-align: right;">Page 191</p> <p>1 A. Either at loss or just not as<br/>2 profitable as selling in the US.</p> <p><b>3 Q. And on the other hand, if the<br/>4 exports are more profitable than domestic<br/>5 sales, it would not be fair to treat that as<br/>6 challenged conduct, right?</b></p> <p>7 MR. RISSMAN: Object to form.</p> <p>8 Calls for a legal conclusion.</p> <p>9 A. Again, I'm not treating the<br/>10 exporting as a restraint that is going to be<br/>11 eliminated when I move to the but-for world.<br/>12 It's one mechanism by which the defendants<br/>13 allegedly reduced domestic supply.</p> <p>14 BY MR. COLEMAN:</p> <p><b>15 Q. Yeah. And so one thing you did<br/>16 was you looked at qualitative evidence, and<br/>17 you mentioned that there might have been<br/>18 conversations among defendant CEOs about<br/>19 exports as an example of that kind of<br/>20 qualitative evidence, showing that there was<br/>21 coordination on exports, right?</b></p> <p>22 A. As well as the Agri Stats export<br/>23 report itself, yes.</p> <p><b>24 Q. Right. So I want to get your<br/>25 understanding of qualitatively, how we assess</b></p>                               |
| <p style="text-align: right;">Page 190</p> <p>1 decisions of how much to export.<br/>2 They can monitor each other's<br/>3 decision making with respect to exporting,<br/>4 see how much of the production was being<br/>5 shipped abroad.</p> <p>6 BY MR. COLEMAN:</p> <p><b>7 Q. So if in some instances -- so if<br/>8 one of the defendants was able to obtain a<br/>9 higher price for a particular product by<br/>10 exporting it, that's perfectly lawful, right?</b></p> <p>11 MR. RISSMAN: Object to form.</p> <p>12 Calls for a legal conclusion.</p> <p>13 A. I think I would have to know more<br/>14 about the hypothetical, but I think I cite<br/>15 the opposite in my report, which are<br/>16 instances where exporting was occurring at a<br/>17 lower price, but they were doing it for the<br/>18 good of the -- you know, the alleged<br/>19 conspiracy by suppressing prices in the<br/>20 domestic market.</p> <p>21 BY MR. COLEMAN:</p> <p><b>22 Q. What was notable about that, in<br/>23 your mind, was the fact that, at least your<br/>24 understanding, that there may have been<br/>25 exports at a loss, I guess. Is that right?</b></p>   | <p style="text-align: right;">Page 192</p> <p><b>1 any given export to determine whether it was<br/>2 economically rational and reasonable or --<br/>3 or -- on the one hand or part of the<br/>4 conspiracy on the other hand?</b></p> <p>5 A. Yeah. I would say that's a bit of<br/>6 a fool's error. That certainly was not a<br/>7 part of my scope or my study. I'm trying to<br/>8 figure out the pricing model, what portion of<br/>9 the price increase the defendants took that<br/>10 could be attributed to the challenged<br/>11 conduct.</p> <p>12 And I have an associated output<br/>13 model. But I'm not trying to simulate what<br/>14 exports would have been in the absence of a<br/>15 challenged conduct. I have not done such an<br/>16 analysis. And frankly, at this moment in<br/>17 time, I'm not planning on doing such an<br/>18 analysis on the merits.</p> <p><b>19 Q. So in your mind, it's not<br/>20 important to determine whether any of the<br/>21 defendants' exports in this time period<br/>22 were -- in their economic interest, whether<br/>23 or not there was a conspiracy?</b></p> <p>24 A. I'm not -- I'm not trying to<br/>25 predict exports in the but-for world, and so</p> |

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| 1 I'm trying to predict domestic output in the<br>2 but-for world. I don't know if there was a<br>3 model. There was certainly not anything that<br>4 I offered that would allow one to project<br>5 what exports would have looked like in a<br>6 but-for world.<br><br>7 <b>Q. Can you point to any particular<br/>8 export by any defendant that you think was<br/>9 the product of collusion?</b><br><br>10    MR. RISSMAN: Object to form.<br><br>11    A. I mean, I don't do that and, you<br>12 know, what I do instead is I review record<br>13 evidence that's consistent with the criteria<br>14 that economists have identified as being --<br>15 as being supportive or indicative of<br>16 anticompetitive conduct.<br><br>17    And so I told you, I looked at<br>18 CEOs communicating with each other directly<br>19 over export decision. The Agri Stats export<br>20 report itself provided information that would<br>21 allow monitoring among the defendants to --<br>22 to increase -- artificially increase<br>23 exporting. But I never endeavored to<br>24 estimate for any given export of pork whether<br>25 that export, you know, was -- would or would | Page 193<br><br>1 BY MR. COLEMAN:<br>2 <b>Q. And in Paragraph 219, you talk<br/>3 about Smithfield predicting internally that<br/>4 exports expected to be larger than the prior<br/>5 year. Domestic -- decrease in domestic<br/>6 availability should help keep pork prices<br/>7 above prior year -- prior year through the<br/>8 remainder of 2016.</b><br>9         Sorry for stumbling. But that's<br>10 what it says, right --<br>11         A. Yes.<br>12 <b>Q. -- the quoted portion of the<br/>13 Smithfield document.</b><br>14         And that does not refer to<br>15 defendant-to-defendant communication about<br>16 exports, right?<br>17         A. I think defendant to defendant<br>18 might be 217. You're taking me to 219.<br>19 <b>Q. I'm sorry. 219. Yeah. Page 167.</b><br>20         A. But so that paragraph in 219 --<br>21 let's see. You just want me to look at that<br>22 one line about Smithfield?<br>23 <b>Q. Review the paragraph, and I think<br/>24 at the end -- I don't know which excerpts in<br/>25 your mind reflect defendant-to-defendant</b> |
| Page 194<br><br>1 not have occurred in the but-for world. I<br>2 don't do that.<br>3 BY MR. COLEMAN:<br>4 <b>Q. Did you identify any particular<br/>5 transaction by any defendant in which it<br/>6 exported products at a price less than it<br/>7 could obtain in the domestic market?</b><br>8     A. I'm remembering one document -- I<br>9 think I mentioned this before -- where it<br>10 appeared that either it was at a loss or less<br>11 profitable, but yet it was still good for the<br>12 alleged cartel or the alleged conspiracy for<br>13 them to go forward with it anyway.<br>14 <b>Q. We may look at that. Is that a<br/>15 Smithfield document? Do you think you know?</b><br>16     A. It sounds right, but I can't<br>17 remember which -- which exact document it was<br>18 sitting here.<br>19 <b>Q. Can you turn to Page 167 of your<br/>20 report.</b><br>21     A. Sure.<br>22     MR. COLEMAN: Jacob, if you<br>23 could pull up Exhibit 1, if it's<br>24 helpful, Page 167.<br>25     THE WITNESS: Okay.   | Page 194<br><br>1 <b>communications about exports.</b><br>2     A. Let's --<br>3         (Simultaneous unreportable<br>4 crosstalk.)<br>5     A. Let's go to the bottom of 219.<br>6     Sorry. This is a Seaboard CEO using his<br>7 personal e-mail to tell Doug Clemens of<br>8 Clemens that he was, quote, glad to see you<br>9 were working on some higher value export<br>10 opportunities in Japan, Korea because that<br>11 will help take some of the pressure off of<br>12 domestic sales, end quote.<br>13 <b>Q. Yeah. Is that what had in mind<br/>14 when you were thinking about CEO-to-CEO<br/>15 communications between defendants?</b><br>16     A. Yes.<br>17 <b>Q. Are you aware of any others?</b><br>18     A. Sitting here, I don't think I'm<br>19 aware of any others, no.<br>20 <b>Q. Do you know whether in 2018,<br/>21 Mr. Brenneman was the CEO of Seaboard?</b><br>22     A. I mean, that's what the language<br>23 says there.<br>24 <b>Q. That's what you wrote?</b><br>25     A. Yes, that's what I wrote.   |

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| 1     Q. You would agree that it's<br>2 important to take care that actions<br>3 consistent with rational self-interest are<br>4 not treated as evidence of an antitrust<br>5 conspiracy, right?<br>6     A. I think that's fair, yes.<br>7     Q. And a good test for exports in<br>8 particular and whether an export raises<br>9 antitrust suspicions is whether the exports<br>10 are sold at prices in foreign markets below<br>11 what could have been achieved in the domestic<br>12 market, right?<br>13    A. It's an indicator. I don't know<br>14 if it's a good test. I mean, if you get<br>15 communication between two CEOs coordinating<br>16 their export decision, at that point, I don't<br>17 need to know if the price is above or<br>18 below --<br>19       (Reporter clarification.)<br>20    A. -- some requisite level to<br>21 determine whether or not that's potentially<br>22 anticompetitive.<br>23    Q. At that point, the fact of the CEO<br>24 correspondence sort of overrides whatever the<br>25 economics is in your mind?  | Page 197<br><br>1 about exports like four or five times in this<br>2 deposition. Is that fair?<br>3           MR. RISSMAN: Object to form.<br>4           You're asking questions, not just<br>5 referencing things.<br>6           MR. COLEMAN: Yeah.<br>7     A. Yes. I remember saying it, and<br>8 then you suggesting that I was making it up<br>9 and I was saying no, no, no, I remember it.<br>10 You said, no, we'll see about that.<br>11       And so it's been kind of a bone of<br>12 contention today as whether or not this thing<br>13 exists. So, yes, we have mentioned it a lot,<br>14 and I was right.<br>15 BY MR. COLEMAN:<br>16    Q. You were right that you wrote that<br>17 allegation in your report, right?<br>18    A. I was right that that record<br>19 evidence, consistent with collusion, was in<br>20 my report. You disputed that it was in my<br>21 report, and I couldn't remember the paragraph<br>22 when the report was closed, but now having<br>23 you taking me to Paragraph 219, it refreshes<br>24 my recollection.<br>25    Q. And that's what you're relying on |
| Page 198<br><br>1     A. No, not overrides the economics.<br>2 It is direct communication of a strategy that<br>3 is designed here, obviously, to support<br>4 higher domestic prices. It is consistent<br>5 with a cartel-like behavior, period, end of<br>6 story.<br>7       It is economic -- it's an economic<br>8 analysis. It derives from an economic<br>9 criteria designed by economists to identify<br>10 conspiracies. So I just -- the way that you<br>11 phrase the question was just wrong.<br>12    Q. That's fair. It sounds to me like<br>13 you view the correspondence between CEOs that<br>14 we discussed in 2019 as being important to<br>15 informing your analysis, right?<br>16    A. I mean, it's important, but I<br>17 think that everything that I cite is<br>18 important. I don't want to give it any more<br>19 weight than any other documents that are<br>20 cited here. Just it's an important document<br>21 in the case that is supportive of the<br>22 allegations in the complaint for the<br>23 existence of a conspiracy.<br>24    Q. I heard you reference a<br>25 conversation between CEOs of the defendant | Page 198<br><br>1 as evidence of collusion between CEOs of<br>2 defendants?<br>3     A. You know what --<br>4           MR. RISSMAN: Object to form.<br>5           Mischaracterizes his testimony.<br>6     A. You know what section this is<br>7 coming in. It's coming in as the end of how<br>8 you can do a mapping of the evidence that I<br>9 reviewed so far of the plus factors, and -- I<br>10 will leave it at that.<br>11 BY MR. COLEMAN:<br>12    Q. Coming back to this idea again,<br>13 you don't -- you're not opining that all<br>14 exports that occurred during the class period<br>15 were the product of the alleged conspiracy,<br>16 right?<br>17           MR. RISSMAN: Objection. Asked<br>18 and answered again.<br>19    A. I don't know how I could better --<br>20 better say it. But it's not my opinion that<br>21 exports would be zero in the but-for world.<br>22 There's some amount of exports that would<br>23 continue to occur in the but-for world for<br>24 sure.<br>25   |

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| 1 BY MR. COLEMAN:<br>2 <b>Q. And I'm interested in whether a</b><br>3 <b>reasonable approach to distinguishing between</b><br>4 <b>roughly lawful valid exports on the one hand</b><br>5 <b>and exports that are part of the conspiracy</b><br>6 <b>on the other hand is whether the exports were</b><br>7 <b>sold at prices in foreign markets below what</b><br>8 <b>could have been achieved in the domestic</b><br>9 <b>market.</b><br><br>10       MR. RISSMAN: Objection. Asked<br>11       and answered.<br><br>12 BY MR. COLEMAN:<br>13 <b>Q. Is there a reasonable way to</b><br>14 <b>distinguish lawful from unlawful exports?</b><br><br>15       MR. RISSMAN: Objection. Asked<br>16       and answered, and calls for a legal<br>17       conclusion.<br><br>18       A. In the absence of direct evidence,<br>19       the two CEOs were coordinating in their<br>20       export decisions and one could look at the<br>21       price and whether or not the firm -- or the<br>22       defendant incurred a loss. That would be --<br>23       if they did that could be indicative of<br>24       anticompetitive conduct.<br><br>25       But I'm going to say, again, if | Page 201<br><br>1 thousand times now -- that exports likely<br>2 increased in the actual world relative to the<br>3 but-for world because of the challenged<br>4 conduct to the extent it was part of the<br>5 scheme. But I don't think there's any chance<br>6 that I've failed to account properly for<br>7 exports when measuring the effect of the<br>8 challenged conduct and the single alleged<br>9 conspiracy to suppress output and raise<br>10 prices when we are looking at that on<br>11 domestic prices.<br><br>12 <b>Q. Do you agree that if a model</b><br>13 <b>purports to show evidence of an antitrust</b><br>14 <b>conspiracy, it should be sure to exclude or</b><br>15 <b>control for economically rational decisions</b><br>16 <b>that are in a firm's interests?</b><br><br>17       A. Again, I'm not --<br>18       MR. RISSMAN: Object to form.<br>19       A. I'm not sure which model you're<br>20 referring to. Are you referring to my<br>21 regression model?<br><br>22 BY MR. COLEMAN:<br>23 <b>Q. Just in general. If you're going</b><br>24 <b>to offer antitrust -- you know, an</b><br>25 <b>econometric model or an economic model in an</b> |
| Page 202<br><br>1 you have direct evidence of communication, if<br>2 you have a sort of evidence that we see from<br>3 Agri Stats where firms are able to monitor<br>4 each other's exports, right, then we don't<br>5 necessarily have to go and see if, in fact,<br>6 there was a profit sacrifice taken.<br><br>7       I think the profit sacrifice is<br>8 helpful, and it certainly is indicative when<br>9 it happens, but it's not a necessary<br>10 condition.<br><br>11 BY MR. COLEMAN:<br>12 <b>Q. Do you have any concerns that your</b><br>13 <b>model could have -- could be treating</b><br>14 <b>economically rational exports as challenged</b><br>15 <b>conduct?</b><br><br>16       A. No. I have no concerns -- are you<br>17 referring to my econometric model of prices?<br>18 <b>Q. Yes.</b><br>19       A. Well, as you know, I'm only<br>20 looking domestic supply in my dependent<br>21 variable, and so I don't think there's any<br>22 way that I could be misattributing the<br>23 effects of the challenged conduct to<br>24 something else including levels of export.<br><br>25       I feel like that -- I said this a                                      | Page 202<br><br>1 antitrust case purporting to quantify<br>2 anticompetitive activity or the economic<br>3 impact of economic activity, is it important<br>4 that the model exclude or control for<br>5 economically rational decisions that are in<br>6 the firm's interest?<br><br>7       MR. RISSMAN: Object to form.<br>8       A. Well, if we're talking about the<br>9 regression model, what's important to control<br>10 for are all of the phenomenon that could be<br>11 affecting pricing during the study period so<br>12 that you don't inadvertently attribute the<br>13 price effects that we're seeing to the<br>14 challenged conduct when, in fact, it's<br>15 something else including procompetitive<br>16 reasons.<br><br>17       And I feel like I've done that.<br>18 Nothing that you have said today caused my to<br>19 want to go back and add an additional control<br>20 variable.<br><br>21       With respect to the qualitative<br>22 factors, you know, I'm following the criteria<br>23 that have been identified in the economic<br>24 literature by Suslow, and, you know, things<br>25 like inducements to collude and monitoring,            |

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| Page 205   | Page 207  |
| <p>1 and so I'm kind of going through and looking<br/>2 at the record evidence in light of that<br/>3 three-pronged criteria, and I feel like the<br/>4 evidence is consistent with the existence of<br/>5 a conspiracy.</p> <p>6 And I think it's the combination<br/>7 of the two. It's the fact that the<br/>8 qualitative criteria satisfied and in<br/>9 conjunction with the econometric model, it<br/>10 gives me confidence that what I'm looking at<br/>11 has the look and feel of a cartel --<br/>12 anticompetitive cartel.</p> <p>13 BY MR. COLEMAN:</p> <p>14 Q. If we go back to Tab 45, the Pork<br/>15 Checkoff -- I got that as Exhibit 6 -- and go<br/>16 to page -- let's go to Page 42.</p> <p>17 A. Okay.</p> <p>18 THE VIDEOGRAPHER: Did you say<br/>19 42?</p> <p>20 MR. COLEMAN: Yeah.</p> <p>21 A. Okay. I'm at 42.</p> <p>22 BY MR. COLEMAN:</p> <p>23 Q. 1995, it says that: At the<br/>24 request of producers, the Pork Checkoff<br/>25 increases to 45 cents of 1 percent (45 cents</p>   | <p>1 Checkoff is, no.</p> <p>2 Q. If we turn to the next page,<br/>3 Page 43. It says: In 2003 -- the top of the<br/>4 page -- the United States continues to export<br/>5 more pork setting a new record for pork<br/>6 experts for the 12th consecutive year.</p> <p>7 Do you see that?</p> <p>8 A. Yes.</p> <p>9 Q. Do you know whether the Pork<br/>10 Checkoff actively supported the export of<br/>11 pork produced in the United States?</p> <p>12 A. Actively supported it, no, I don't<br/>13 know -- I don't know what you mean. Lobbying<br/>14 for it? What do you mean by supporting it?</p> <p>15 Q. Sounds like you have no knowledge<br/>16 here, so defining terms is not going to help<br/>17 us.</p> <p>18 A. You used the word "support," which<br/>19 is fairly ambiguous in that sentence. I<br/>20 don't know what you mean by "support."</p> <p>21 Q. You understand whether American<br/>22 pork producers, independent producers have<br/>23 taken measures to support an increase exports<br/>24 of pork produced in the United States?</p> <p>25 A. I think that someone selling pork</p> |
| Page 206   | Page 208  |
| <p>1 per hundred dollar value). This checkoff<br/>2 rate stays the same until 2002.</p> <p>3 Do you see that?</p> <p>4 A. Yes.</p> <p>5 Q. And do you have any understanding<br/>6 of how Pork Checkoff funds are raised?</p> <p>7 A. No. And it's not defined in the<br/>8 bullet you give me. I mean, that's not even<br/>9 a sentence. It just says Pork Checkoff<br/>10 increases and presumes the reader knows how<br/>11 Pork Checkout -- the institution is called<br/>12 Pork Checkoff, and they've designed a metric<br/>13 with the same name, Pork Checkoff, and they<br/>14 say that their institution's name has<br/>15 increased to .451 percent.</p> <p>16 I mean, just looking at that, it's<br/>17 impossible to know what they are talking<br/>18 about.</p> <p>19 Q. Yeah. And so -- not a test. But<br/>20 I just want to know if you -- maybe<br/>21 established this already, and I'm going to<br/>22 get an asked and answered objection.</p> <p>23 But do you know what the Pork<br/>24 Checkoff is?</p> <p>25 A. I don't recall what the Pork</p> | <p>1 would be looking for opportunities to make<br/>2 export sales.</p> <p>3 Q. And not only that, but independent<br/>4 hog producers have long supported exports of<br/>5 domestically raised pork, right?</p> <p>6 MR. RISSMAN: Object to form.<br/>7 Foundation.</p> <p>8 A. I don't know if that's true.</p> <p>9 BY MR. COLEMAN:</p> <p>10 Q. The next page, Page 50 -- I'm<br/>11 sorry. Page 44. I'm sorry. I'm sending you<br/>12 on a goose chase.</p> <p>13 2005, it says that: America's<br/>14 pork producers continue to grow sales abroad<br/>15 with the United States becoming the largest<br/>16 pork exporter.</p> <p>17 Do you see that?</p> <p>18 A. Yes.</p> <p>19 Q. And, again, that would appear to<br/>20 indicate that America's pork producers, the<br/>21 mission of theirs to expand pork exports,<br/>22 right?</p> <p>23 MR. RISSMAN: Object to form and<br/>24 foundation.</p> <p>25 A. It just says that America's pork</p>   |

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| Page 209   | Page 211   |
| <p>1 producers continue to grow sales abroad, with<br/>2 the United States as one of the largest pork<br/>3 exporters.</p> <p>4 BY MR. COLEMAN:</p> <p>5 Q. And if we looked on the next page,<br/>6 2007, so on Page 45, it says: US pork<br/>7 exports broke records for the 16th<br/>8 consecutive years -- year. Exports totaled<br/>9 1.3 million metric tons, nearly 2.9 billion<br/>10 pounds at a value exceeding 3.15 billion.</p> <p>11 Do you see that?</p> <p>12 A. Yes.</p> <p>13 Q. And you don't dispute this was an<br/>14 effort by independent pork producers, right?</p> <p>15 MR. RISSMAN: Object to form.</p> <p>16 Foundation.</p> <p>17 A. I don't think from that bullet you<br/>18 can tell that it's effort from independent<br/>19 pork producers. I don't know how you get<br/>20 that from that bullet.</p> <p>21 BY MR. COLEMAN:</p> <p>22 Q. I am asking about your knowledge.</p> <p>23 A. Oh. I don't know -- I don't know<br/>24 what independent pork producers were<br/>25 advocating in 2007.</p> | <p>1 BY MR. COLEMAN:</p> <p>2 Q. But you do offer the opinion that<br/>3 increase in exports raised the price of pork,<br/>4 right?</p> <p>5 A. I offer record evidence suggesting<br/>6 that that was the effect and that was the<br/>7 understanding of the defendants in the case,<br/>8 that they could move pork outside of the US<br/>9 and put it abroad, that it could cause the<br/>10 prices in the US to rise.</p> <p>11 Q. And if the price of pork<br/>12 increases, the value of hogs increased,<br/>13 right?</p> <p>14 MR. RISSMAN: Objection. Same<br/>15 instruction. If you have an opinion<br/>16 you're offering in this case, you can<br/>17 give it; otherwise, you shouldn't<br/>18 answer.</p> <p>19 A. Yeah, that's not an opinion that<br/>20 I'm offering in this case.</p> <p>21 BY MR. COLEMAN:</p> <p>22 Q. So you don't know one way or the<br/>23 other whether increased exports over time<br/>24 have raised hog values and supported domestic<br/>25 production of hogs?</p>   |
| Page 210   | Page 212   |
| <p>1 Q. Increased exports is good -- are<br/>2 good for independent pork producers, right?</p> <p>3 MR. RISSMAN: Object to form.</p> <p>4 And instruct the witness to only<br/>5 answer questions he's -- has an<br/>6 opinion about.</p> <p>7 A. Well, I don't have an opinion on<br/>8 those.</p> <p>9 BY MR. COLEMAN:</p> <p>10 Q. Do you have -- you don't have<br/>11 opinion one way or the other whether<br/>12 increased exports benefit independent hog<br/>13 farmers?</p> <p>14 MR. RISSMAN: I will just<br/>15 clarify that I mean an opinion in this<br/>16 case.</p> <p>17 A. No, I haven't offered an opinion<br/>18 in this case on that.</p> <p>19 BY MR. COLEMAN:</p> <p>20 Q. Do you have any opinion as to<br/>21 whether increased exports of pork have over<br/>22 time encouraged the expansion of domestic hog<br/>23 farms?</p> <p>24 MR. RISSMAN: Same instruction.</p> <p>25 A. Not in this case, no.</p>   | <p>1 MR. RISSMAN: Same instruction.</p> <p>2 A. I don't have an opinion, and that<br/>3 would require a different model unrelated to<br/>4 the relevant market here. It would be<br/>5 modeling production upstream.</p> <p>6 BY MR. COLEMAN:</p> <p>7 Q. Well, it would increase quantity<br/>8 of hogs and ultimately pork, right? More<br/>9 hogs are being produced on American farms?</p> <p>10 MR. RISSMAN: Object to form.</p> <p>11 And same instruction.</p> <p>12 A. You said "it." I'm not sure what<br/>13 the "it" is. What's the trigger that<br/>14 supposedly increases production upstream?</p> <p>15 BY MR. COLEMAN:</p> <p>16 Q. Higher hog value would encourage<br/>17 farmers to grow more hogs, right?</p> <p>18 MR. RISSMAN: Same instruction.</p> <p>19 A. Yeah. I'm not offering an opinion<br/>20 there. I do use, you know, cost of the --<br/>21 the cost of the -- to raise the hog is an<br/>22 explanatory variable of prices in the<br/>23 relevant market. But I hear your question<br/>24 as, you know, whether there's some kind of<br/>25 feedback effect in the upstream market. I</p> |

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| 1 haven't studied that.<br><br>2 MR. COLEMAN: Jacob, can you go<br>3 to Page 104. There we go. It's<br>4 called the chart -- I'm interested in<br>5 the chart with the header: US Pork<br>6 Exports.<br><br>7 BY MR. COLEMAN:<br><br>8 Q. And that chart shows that dating<br>9 to the mid-'90s, when NAFTA was signed,<br>10 there's been a steady upward tick in US pork<br>11 exports, right?<br><br>12 A. Correct.<br><br>13 Q. And that long predates the class<br>14 period and the control period -- the before<br>15 period that you used, right?<br><br>16 MR. RISSMAN: Object to form.<br><br>17 Mischaracterizes the document.<br><br>18 A. What I will say is that this --<br>19 this trend of increasing exports predates the<br>20 class period.<br><br>21 BY MR. COLEMAN:<br><br>22 Q. And it also predates the before<br>23 period that is 2005 to 2008, right?<br><br>24 A. Correct. And I'm not -- I'm<br>25 studying prices. I'm not trying to come up  | Page 213<br><br>1 but-for world.<br>2 You know, I didn't do that. I can<br>3 tell you what the graph would look like is<br>4 that it would still continue going upward.<br>5 It just wouldn't have gone up by as fast a<br>6 rate as it did absent the challenged conduct.<br><br>7 BY MR. COLEMAN:<br><br>8 Q. How would you go about modeling<br>9 what exports would have looked like in the<br>10 but-for world?<br><br>11 A. I think I would need just to aim<br>12 my machinery not at prices but at exports. I<br>13 would try making exports the dependent<br>14 variable, but, you know, that's not how I set<br>15 about establishing anticompetitive injury<br>16 here.<br><br>17 Maybe some other expert is<br>18 interested in doing that, but I'm not trying<br>19 to come up with a decomposition, as I told<br>20 you, of the causes of the domestic reduction.<br>21 We can see it very clearly in one of my first<br>22 figures where we show that the domestic<br>23 production fell below trend.<br><br>24 And, you know, what I'm trying to<br>25 figure out is how much of that domestic |
| Page 214<br><br>1 with an empirical model to predict output or<br>2 exports. I'm setting the effect of the<br>3 alleged conspiracy on prices in my<br>4 econometric model.<br><br>5 Q. I mean, another interesting thing<br>6 about this graph is that the first-time<br>7 exports declined from NAFTA in 1994 to the<br>8 end of the graph is 2009, the first year<br>9 where there's supposed cartel in which<br>10 there's a conspiracy to export pork, right?<br><br>11 MR. RISSMAN: Object to form.<br><br>12 A. So the conspiracy is not<br>13 exclusively about exporting. We have<br>14 mentioned this now about ten times. But<br>15 exporting is one of several levers that the<br>16 defendants allegedly use to reduce domestic<br>17 supply.<br><br>18 The fact that it fell in '9<br>19 relative to this stupendous year in '8 isn't<br>20 all that remarkable. What I want to see is<br>21 -- '9 is still an impressive upward trend<br>22 relative to all preceding years except for<br>23 '8, and I want to see what the trend looked<br>24 like beyond that if I were inclined to model<br>25 what exports would have looked like in a | Page 214<br><br>1 production declined can be attributed to the<br>2 challenged conduct. And I -- you're familiar<br>3 with my output section. It turns on the<br>4 price effects and the own price of elasticity<br>5 of demand faced by the defendants.<br><br>6 Q. So we have a snapshot of the<br>7 preconspiracy period. What happened to<br>8 exports on the post-conspiracy period?<br><br>9 A. You mean after 2018?<br><br>10 Q. Yes.<br><br>11 A. Sitting here, I can't tell you<br>12 what happened.<br><br>13 Q. So you're not aware that pork<br>14 exports increased 11 percent in 2020, for<br>15 example?<br><br>16 A. No, but that wouldn't surprise me.<br>17 It seems like just as the world markets are<br>18 growing, especially the demand for<br>19 US-produced pork, I would expect that exports<br>20 would trend up over time.<br><br>21 That doesn't mean the -- an<br>22 agreement to shift into overdrive could not<br>23 have amplified or accelerated exports over<br>24 what it would have been in the absence of the<br>25 challenged conduct. There's a secular trend          |

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| Page 217  | Page 219   |
| <p>1 upward. So the fact that it continues to go<br/>2 up, I don't think is dispositive to tell us<br/>3 what the effect of the challenged conduct was<br/>4 on exports.</p> <p>5 <b>Q. And included in your answer is a<br/>6 recognition that there's been increasing<br/>7 demand for US agricultural products including<br/>8 pork over time, right?</b></p> <p>9 MR. RISSMAN: Object to form.</p> <p>10 A. I think that that's fair, and<br/>11 that's why I control for certain things in my<br/>12 regression -- in my price regression model.<br/>13 It's not an export model. It's a price<br/>14 regression model, including a time trend.</p> <p>15 BY MR. COLEMAN:</p> <p>16 <b>Q. Did you control for foreign demand<br/>17 for US pork?</b></p> <p>18 A. Well, like I just said, the time<br/>19 trend might capture it. Let me look just to<br/>20 see if there are any other variables that<br/>21 might pick that up.</p> <p>22 Well, the only other variable that<br/>23 I think would pick that up -- I mean,<br/>24 everything could be affected in theory, but<br/>25 the most logical is that real GDP per capita</p> | <p>1 <b>Q. Did you control for the foreign<br/>2 production of hogs in Japan, China, Russia,<br/>3 et cetera?</b></p> <p>4 A. No, I did not and, you know,<br/>5 there's a technical problem in doing that, is<br/>6 that we want to avoid putting quantities on the<br/>7 right-hand side of a price regression. This<br/>8 model reduced for a price regression, so if<br/>9 you introduce quantities, you can encounter<br/>10 what econometrician call the endogeneity<br/>11 problems.</p> <p>12 So we -- we are trying to come up<br/>13 with variables that move the supply and<br/>14 demand around for the product at issue<br/>15 without bringing quantities explicitly into the<br/>16 model.</p> <p>17 <b>Q. If foreign production of pork<br/>18 drops because of disease, drought, any other<br/>19 factors like that, that might increase demand<br/>20 for US pork, right?</b></p> <p>21 MR. RISSMAN: Object to form.</p> <p>22 Incomplete hypothetical.</p> <p>23 A. You could tell all sorts of<br/>24 stories, but the problem is that if foreign<br/>25 production is a function of the US pork</p> |
| <p>Page 218</p> <p>1 would increase with exports generally. And<br/>2 so if exports generally were going up over<br/>3 time, then real GDP per capita could capture<br/>4 that as well.</p> <p>5 But I think the time trend is<br/>6 probably what's most aimed at capturing a<br/>7 steady secular trend -- upward trend exports<br/>8 for US pork.</p> <p>9 <b>Q. Did it control for perceptions<br/>10 about the safety or quality of US pork,<br/>11 whether positive or --</b></p> <p>12 A. Sure. Sure. That's the swine flu<br/>13 flag.</p> <p>14 <b>Q. Anything else?</b></p> <p>15 A. No. I think that's the one that<br/>16 would have affected US consumers' perception<br/>17 of the quality of pork or the safety of pork.</p> <p>18 <b>Q. Do you have any sense of whether<br/>19 there's been anything else that's affected<br/>20 the foreign perceptions of the safety or<br/>21 quality of US pork?</b></p> <p>22 A. In my model, I don't think that<br/>23 I've got other things that are capturing<br/>24 foreign perceptions of US safety besides the<br/>25 variable that captures the swine flu.</p>                 | <p>Page 220</p> <p>1 price, then it cannot enter the right-hand<br/>2 side of a regression model. You would have<br/>3 to come up with some instrument for foreign<br/>4 production.</p> <p>5 BY MR. COLEMAN:</p> <p>6 <b>Q. You control for currency<br/>7 fluctuations?</b></p> <p>8 A. I think in one model we do, but I<br/>9 would have to kind of go through this. It<br/>10 might not be until we do the passthrough.<br/>11 But it seems -- it seems familiar, but it's<br/>12 possible. I would just have to look through.</p> <p>13 <b>Q. Do you control for trade<br/>14 agreements or trade policies?</b></p> <p>15 A. No, we don't control for trade<br/>16 policies.</p> <p>17 <b>Q. There were been several in the<br/>18 class period, right, that would impact the<br/>19 demand for US pork?</b></p> <p>20 A. During the class period? I mean,<br/>21 NAFTA would predate the class period. Maybe<br/>22 you can tell me which trade policies you have<br/>23 in mind from 2014 forward.</p> <p>24 <b>Q. Nothing comes to mind as you sit<br/>25 here today?</b></p>                                   |

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| Page 221   | Page 223  |
| <p>1 A. The big trade agreements I think<br/>2 predated 2014, but you could tell me which<br/>3 one you have in mind, or not.</p> <p>4 <b>Q. Did you control for actions by<br/>5 other countries increasing or decreasing<br/>6 restrictions on US pork?</b></p> <p>7 A. No. Because we are looking at<br/>8 domestic pork sales, and this is -- it would<br/>9 be meant for the US market. So looking at<br/>10 restrictions in foreign countries would be<br/>11 irrelevant.</p> <p>12 <b>Q. Well, so, for example, if a<br/>13 country lifts the restriction on ractopamine<br/>14 or imposes a restriction on ractopamine used<br/>15 in pigs, that might affect foreign demand for<br/>16 domestically raised pigs, right?</b></p> <p>17 A. I'm not modeling domestically<br/>18 raised pigs. I'm looking at sales of pork<br/>19 into the United States. I'm not looking at<br/>20 exports. These are just domestic production<br/>21 for domestic consumption.</p> <p>22 <b>Q. Well, you're -- one of the levers<br/>23 of the supposed conspiracy is increasing<br/>24 exports, right?</b></p> <p>25 A. One of the levers that were</p> | <p>1 A. In part, but that was just one of<br/>2 three different levers, and then also the<br/>3 price increases -- the artificial price<br/>4 increases would have reduced output as well.</p> <p>5 <b>Q. Go to Tab 60.</b></p> <p>6 A. Okay.</p> <p>7 <b>Q. Do you understand that the US<br/>8 Department of Agriculture has actively<br/>9 promoted the export of pork among other<br/>10 domestically raised agricultural products?</b></p> <p>11 A. Well, I mean, now that I'm looking<br/>12 at this document, I can't help from doing it.<br/>13 I think that the USDA might do that in<br/>14 general, but I can accept this premise, that<br/>15 that's one of their missions is to help<br/>16 export US products.</p> <p>17 <b>Q. And, in fact, do you recognize<br/>18 that the 2014 farm bill, part of its mission<br/>19 to increase -- the Department of Agriculture<br/>20 increase exports by promoting domestically<br/>21 raised products like pork and other products?</b></p> <p>22 MR. RISSMAN: Objection.</p> <p>23 Foundation.</p> <p>24 A. Yeah. I mean, the first paragraph<br/>25 says something to that effect.</p> |
| Page 222   | Page 224  |
| <p>1 designed to reduce the supply for the<br/>2 domestic consumption was exporting. That is<br/>3 correct.</p> <p>4 <b>Q. And I think we have gone through a<br/>5 number of things that could -- factors that<br/>6 could influence the export of US pork, right?</b></p> <p>7 MR. RISSMAN: Object to form.</p> <p>8 And that mischaracterizes the<br/>9 testimony.</p> <p>10 A. Sitting here, I don't recall the<br/>11 factors -- if we have identified factors that<br/>12 influence exports. We just talked about the<br/>13 secular trend of increasing exports over<br/>14 time.</p> <p>15 BY MR. COLEMAN:</p> <p>16 <b>Q. Well, do you deny that the<br/>17 relative value of US dollar for currency<br/>18 fluctuation would affect foreign demand for<br/>19 US pork?</b></p> <p>20 A. It could affect foreign demand,<br/>21 but that's not what I'm modeling. I'm not<br/>22 modeling exports. I'm modeling domestic<br/>23 consumption of pork.</p> <p>24 <b>Q. And your view is that exports were<br/>25 used to lower domestic consumption, right?</b></p>   | <p>1 BY MR. COLEMAN:</p> <p>2 <b>Q. You are not aware of that on your<br/>3 own?</b></p> <p>4 A. Sitting here, I don't have -- I<br/>5 did not -- I did not study the ramifications<br/>6 of the 2014 farm bill.</p> <p>7 <b>Q. It allocated a significant amount<br/>8 of money to promoting USA pork, right --<br/>9 exports of US pork?</b></p> <p>10 MR. RISSMAN: Object to form.</p> <p>11 A. You can't know that from the -- at<br/>12 least the first paragraph.</p> <p>13 BY MR. COLEMAN:</p> <p>14 <b>Q. Did you control for whatever<br/>15 impact the government's promotion of US pork<br/>16 might have had?</b></p> <p>17 A. No, because I'm not modeling --<br/>18 sorry. I thought you were done. Sorry. Why<br/>19 don't you go ahead.</p> <p>20 <b>Q. No, go ahead. I'm good.</b></p> <p>21 A. I'm not modeling the export<br/>22 markets. I'm modeling domestic consumption.<br/>23 So what the government is doing to promote<br/>24 exports is beyond the scope of what I'm<br/>25 investigating.</p>  |

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| Page 225  | Page 227   |
| <p>1 Q. I'm having a hard time<br/>2 understanding that because, on the one hand,<br/>3 you're telling me that there was a<br/>4 conspiracy -- one of the levers of which was<br/>5 to increase exports for the purpose of<br/>6 increasing prices in the US.<br/>7 On the other hand, you're telling<br/>8 me you're just uninterested in whether the<br/>9 government was actively promoting exports and<br/>10 what impact that might have had on increased<br/>11 exports during the class period.<br/>12 How should I be reconciling that<br/>13 in my mind?<br/>14 MR. RISSMAN: Object to --<br/>15 A. I said if I were --<br/>16 MR. RISSMAN: Hold on.<br/>17 Object to form. Argumentative.<br/>18 A. Yeah, if I were interested in<br/>19 modeling exports, this would be a reasonable<br/>20 inquiry. But I'm not intent on demonstrating<br/>21 anticompetitive effects here through some<br/>22 model of exports that showed exports being in<br/>23 excess of what they otherwise would have been<br/>24 in the absence of a challenged conduct.<br/>25 That's not my -- that's not my</p>                                       | <p>1 definition, sure.<br/>2 Q. For example, ham would be a good<br/>3 example. Do you have any insights into how<br/>4 much ham the United States exports?<br/>5 A. No.<br/>6 Q. You didn't look at that?<br/>7 A. I don't offer an export model, and<br/>8 I'm not using an estimate of exports as my<br/>9 proof of antitrust injury here.<br/>10 Q. You're also aware that there's a<br/>11 significant amount of exports of offal and<br/>12 what are sometimes referred to as variety<br/>13 meats, right?<br/>14 A. Variety meats? Yes. I missed the<br/>15 first -- the first word that you said. Did<br/>16 you say offal?<br/>17 Q. Offal. Offal. I pronounce it as<br/>18 offal because it's closer to what these<br/>19 products actually sound like.<br/>20 A. Okay.<br/>21 Q. Right? Are you familiar with what<br/>22 offal is?<br/>23 A. I'm familiar -- I've come across<br/>24 some variety once. I don't know if I have<br/>25 come across offal.</p> |
| Page 226  | Page 228   |
| <p>1 model. It's not what I set out to do. It<br/>2 could be an interesting academic exercise,<br/>3 but it's not in my report. It's not in proof<br/>4 of impact. We can talk about alternative<br/>5 models that I didn't put forward until we are<br/>6 blue in the face, but all I can do today is<br/>7 defend my model, the logic of my model, the<br/>8 control variables of my model, and my model<br/>9 is a price model in the domestic market.<br/>10 BY MR. COLEMAN:<br/>11 Q. So are you able to distinguish<br/>12 exports -- increases in exports that are<br/>13 attributable to the US government promoting<br/>14 US pork versus exports that resulted from the<br/>15 supposed conspiracy?<br/>16 A. I don't aim to do that. I am not<br/>17 modeling exports. I don't have an export<br/>18 model.<br/>19 Q. And you're aware that many of the<br/>20 exports of pork products from the United<br/>21 States or other countries include products<br/>22 that are not class products, using your<br/>23 definition, right?<br/>24 A. It is conceivable that some of US<br/>25 exports of pork sit outside of the class</p> | <p>1 Q. Are you familiar with the fact<br/>2 that -- well, the defendants increase -- I am<br/>3 sorry, export a significant amount of pig<br/>4 parts like bungs, snouts, organ meat to other<br/>5 markets?<br/>6 A. I'm sure they -- I am sure they<br/>7 could.<br/>8 MR. RISSMAN: Object to form.<br/>9 A. I am sorry.<br/>10 I'm sure they could. It's outside<br/>11 of the class definition, outside of the<br/>12 market that I'm interested in setting, which<br/>13 is domestic consumption. So all the things<br/>14 that are happening outside of scope of my<br/>15 study, I'm not studying by definition.<br/>16 BY MR. COLEMAN:<br/>17 Q. Do the data on which you relied to<br/>18 assess US exports include offal and variety<br/>19 meats?<br/>20 A. No. I widow out everything that<br/>21 doesn't meet the class definition before<br/>22 running my model.<br/>23 Q. What data set were you using for<br/>24 that?<br/>25 A. Defendants' data.</p> |

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| Page 229   | Page 231   |
| <p>1     <b>Q. You were using defendants' data of</b><br/>2     <b>exports?</b></p> <p>3     A. No. I'm not looking at exports.<br/>4     I don't know how many times I have to say<br/>5     this. I'm looking at defendants' domestic<br/>6     sales -- the transaction data for domestic<br/>7     sales. But after I removed exports, I then<br/>8     remove everything that doesn't meet the class<br/>9     definition.</p> <p>10    <b>Q. So exports are a lever of the</b><br/>11    <b>supposed conspiracy, but you're not able to</b><br/>12    <b>point to any particular export of a class</b><br/>13    <b>product by any defendant in the class period?</b></p> <p>14    A. Liquidation and harvest reduction<br/>15    are also levers by which output was reduced,<br/>16    and I don't have variables on the right-hand<br/>17    side to capture those strategies either.<br/>18    I'm using a conduct dummy that<br/>19    tracks when Agri Stats started sharing<br/>20    competitively sensitive information among<br/>21    defendants. That's my measure of the<br/>22    challenged conduct, not these ancillary<br/>23    mechanisms by which output was suppressed. I<br/>24    don't want to have three or four conduct<br/>25    variables in my model.</p>   | <p>1 liquidation section and see which defendants<br/>2 are described there.</p> <p>3     <b>Q. Is Smithfield one of them?</b></p> <p>4     A. I believe so. But I can't do this<br/>5     by memory. Do you want turn to the section?<br/>6     160 -- Page 160.</p> <p>7     <b>Q. Go ahead.</b></p> <p>8     A. Smithfield is mentioned in<br/>9     Paragraph 211 and 212.</p> <p>10    <b>Q. Are you aware of any other</b><br/>11    <b>defendant that increased its sow herd --</b><br/>12    <b>decreased its sow herd in the class period?</b></p> <p>13    A. Well, we are talking about in<br/>14    2012. We mentioned Tyson and Seaboard, and<br/>15    then we are talk in 210 about this industry<br/>16    council that appeared to be intent on<br/>17    reducing the sow herd.</p> <p>18    <b>Q. Yeah. What were you referring to</b><br/>19    <b>specifically with the industry council?</b></p> <p>20    A. This Producer Packer Industry<br/>21    Council, PPIC. It's in the middle of 210.</p> <p>22    <b>Q. Yeah. And who participates in</b><br/>23    <b>that NIPC [sic] organization?</b></p> <p>24    A. Well, if you look at Footnote 394,<br/>25    it says the PPIC meeting invitation was sent</p> |
| Page 230   | Page 232   |
| <p>1     I just want one, and it turns to<br/>2     one in the year 2009 when Agri Stats launched<br/>3     certain documents that would support or<br/>4     facilitate the alleged conspiracy here.</p> <p>5     <b>Q. So you are not able -- sitting</b><br/>6     <b>here today, you're not able to point to a</b><br/>7     <b>single sale -- a foreign sale of a pork</b><br/>8     <b>product in the class period that you are able</b><br/>9     <b>to identify as caused by the conspiracy?</b></p> <p>10    MR. RISSMAN: Object to form.</p> <p>11    A. It just was not an objective of<br/>12    mine. It wasn't part of the assignment to go<br/>13    and do a decomposition of exports of those<br/>14    that would have occurred in the but-for world<br/>15    and those that occurred in the actual. That<br/>16    was not part of my assignment.</p> <p>17 BY MR. COLEMAN:</p> <p>18    <b>Q. Can you call up Tab 27.</b></p> <p>19    <b>So how did -- a challenged conduct</b><br/>20    <b>that's been alleged and one of the levers of</b><br/>21    <b>the supposed conspiracy that you point to is</b><br/>22    <b>a reduction in the sow herd by Smithfield,</b><br/>23    <b>and I think there's also an allegation about</b><br/>24    <b>Tyson, right?</b></p> <p>25    A. We would have to go to my</p> | <p>1 to Clemens, Hormel, JBS, Seaboard and<br/>2 Smithfield and Tyson.</p> <p>3     <b>Q. Are those the only participants?</b></p> <p>4     A. For this document. I mean, it's<br/>5     conceivable that others were participating,<br/>6     but I mean, that would be enough.</p> <p>7     <b>Q. Well, if there are any number of</b><br/>8     <b>independent producers and others in the</b><br/>9     <b>room --</b></p> <p>10    A. No, no. These are -- these are<br/>11    packers. This has nothing to do with<br/>12    upstream. So these are -- these are --<br/>13    (Simultaneous unreportable<br/>14    crosstalk.)</p> <p>15    <b>Q. Do you know whether the -- I am</b><br/>16    <b>sorry.</b></p> <p>17    A. Can I finish?</p> <p>18    <b>Q. Yeah, you can finish.</b></p> <p>19    A. To clarify what I meant, these --<br/>20    this isn't -- an invitation to reduce the sow<br/>21    herd that was sent to the defendant packers<br/>22    could only affect the upstream production<br/>23    done by the defendant packers. It couldn't<br/>24    implicate the independents from my read of<br/>25    this.</p>   |

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| <p style="text-align: right;">Page 233</p> <p>1     Q. So your reading of the document<br/>2 that you're citing is that was specifically a<br/>3 meeting limited to the packers; is that<br/>4 right?</p> <p>5         MR. RISSMAN: Objection. Form.</p> <p>6     A. Well, Footnote 340 -- 394 lists<br/>7 the defendants who received it, but I<br/>8 can't -- I can't rule out the possibility<br/>9 that others received the same -- the same<br/>10 note.</p> <p>11 BY MR. COLEMAN:</p> <p>12     Q. Let's be real. You have no idea,<br/>13 right?</p> <p>14         MR. RISSMAN: Objection. It's<br/>15 just argumentative and rude and<br/>16 disrespectful.</p> <p>17         MR. COLEMAN: Well, he's making<br/>18 it up as he goes along.</p> <p>19         MR. RISSMAN: Well, that's just,<br/>20 again, so unprofessional. You can<br/>21 just ignore that question, Dr. Singer.<br/>22 It's not a real question.</p> <p>23             (Reporter clarification.)</p> <p>24 BY MR. COLEMAN:</p> <p>25     Q. Who was in that meeting, the</p>   | <p style="text-align: right;">Page 235</p> <p>1 don't know.</p> <p>2 BY MR. COLEMAN:</p> <p>3         Q. Yeah. Okay. So let's come back<br/>4 to Paragraph 212.</p> <p>5         A. Okay.</p> <p>6         Q. There's a reference to Smithfield<br/>7 liquidating 130,000 sows in 2009, right?</p> <p>8         A. Yes.</p> <p>9         Q. And a reference to Tyson<br/>10 liquidating 20,000 sows in 2009, right?</p> <p>11         A. Yes.</p> <p>12         Q. And Seaboard liquidating 30,000<br/>13 sows in 2009, right?</p> <p>14         A. Yes.</p> <p>15         Q. And you wrote that, right, that<br/>16 sentence?</p> <p>17         A. Yes.</p> <p>18         Q. You stand by it?</p> <p>19         A. Yes.</p> <p>20         Q. And what did you do to investigate<br/>21 that Seaboard liquidated 30,000 sows in 2009?</p> <p>22         A. I've got two sources for it in<br/>23 403.</p> <p>24         Q. What are they?</p> <p>25         A. Well, one is the TFP that ends in</p>  |
| <p style="text-align: right;">Page 234</p> <p>1     <b>Producer Packer Industry Council meeting?</b></p> <p>2     A. Well, it says -- the language here<br/>3 says that it was an industrywide<br/>4 recommendation.</p> <p>5     Q. Did you write that?</p> <p>6     A. Yes.</p> <p>7     Q. So you must have had some<br/>8 knowledge about what you were writing at the<br/>9 time, right?</p> <p>10    A. Well, to me what was important was<br/>11 the fact that I highlighted it, which was<br/>12 that it was sent out to the defendants. You<br/>13 are asking me who else it was sent out to. I<br/>14 don't know who else it was sent out to.</p> <p>15    Q. It's an industrywide<br/>16 recommendation. You don't know whether that<br/>17 include -- that industrywide recommendation<br/>18 included the 70 percent of hog production<br/>19 that's controlled by independent producers,<br/>20 do you?</p> <p>21    MR. RISSMAN: Object to form.</p> <p>22    A. I don't know for a fact. I mean,<br/>23 it's a reasonable inference from the language<br/>24 there, but you're asking do I know for a fact<br/>25 who received it. I don't. Sitting here, I</p> | <p style="text-align: right;">Page 236</p> <p>1 765, and then SPF that ends in 924.</p> <p>2     Q. And as you sit here today, you<br/>3 continue to believe it's true that Seaboard<br/>4 liquidated 30,000 sows in 2009?</p> <p>5     A. Yeah, that's -- yes.</p> <p>6     Q. Are you aware of any other sow<br/>7 reduction in the class period by any other<br/>8 defendant?</p> <p>9     A. Well, you're just looking at 212,<br/>10 but I think that -- I think 212 captures each<br/>11 of the defendants that I'm aware of that<br/>12 liquidated sows in 2009 or during the conduct<br/>13 period.</p> <p>14     Q. Focusing on Smithfield, do you<br/>15 have any idea what its -- whether it was<br/>16 suffering operating losses in 2009?</p> <p>17     A. No.</p> <p>18     Q. Do you know whether it was losing<br/>19 money on its hog production operation?</p> <p>20     A. You just asked me about its<br/>21 upstream division?</p> <p>22     Q. Yeah, its production of hogs.</p> <p>23     A. No. I don't know that.</p> <p>24     Q. Do you know whether it had good<br/>25 economic reasons for liquidating 130,000</p> |

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| Page 237  | Page 239  |
| <p>1 <b>sows?</b></p> <p>2 MR. RISSMAN: Object to form.</p> <p>3 A. No. I don't know what the</p> <p>4 economic reasons was for that liquidation.</p> <p>5 BY MR. COLEMAN:</p> <p>6 Q. And same question for Tyson. Do</p> <p>7 you know whether Tyson was facing losses on</p> <p>8 its hog production operation in 2009?</p> <p>9 A. No idea.</p> <p>10 Q. And do you know whether the</p> <p>11 liquidation of 20,000 sows by Tyson in 2009</p> <p>12 benefited its overall profitability?</p> <p>13 MR. RISSMAN: Object to form.</p> <p>14 A. I think that if you go by what you</p> <p>15 said on -- in Paragraph 210, that liquidation</p> <p>16 was needed to improve profitability of the</p> <p>17 upstream industry, and so my surmise would be</p> <p>18 that as a result of the liquidation that we</p> <p>19 saw, that immediately followed that, that</p> <p>20 assisted the upstream industry.</p> <p>21 MR. COLEMAN: I think we are at</p> <p>22 a point where we are about on the</p> <p>23 90-minute cadence. So we can take a</p> <p>24 pause.</p> <p>25 MR. RISSMAN: Sounds good.</p> | <p>1 A. I don't know. Let me -- let me go</p> <p>2 to 47.</p> <p>3 Q. Yeah. Take your time.</p> <p>4 A. Okay. Let me see.</p> <p>5 Okay.</p> <p>6 Q. And on Page 5007, Page 10 of the</p> <p>7 document -- yeah, we are on the right spot --</p> <p>8 there's a section on pork trade update.</p> <p>9 Are you with me?</p> <p>10 A. Yes.</p> <p>11 Q. And in the middle of the</p> <p>12 paragraph, it says: Effects from the FMD</p> <p>13 crisis in South Korea and the nuclear</p> <p>14 concerns in Japan caused export surges during</p> <p>15 the spring, and China has stepped up again</p> <p>16 during the second half of year, resulted in</p> <p>17 much stronger exports than anticipated</p> <p>18 heading into the year.</p> <p>19 Do you see that?</p> <p>20 A. Yes.</p> <p>21 Q. Do you know what the FMD crisis in</p> <p>22 South Korea was about?</p> <p>23 A. No.</p> <p>24 Q. In any case, nothing in that</p> <p>25 paragraph relates to the purported</p>   |
| Page 238  | Page 240  |
| <p>1 THE VIDEOGRAPHER: The time is</p> <p>2 3:13 p.m. We are going off the</p> <p>3 record.</p> <p>4 (A brief recess was held from</p> <p>5 3:13 p.m. to 3:25 p.m.)</p> <p>6 THE VIDEOGRAPHER: The time is</p> <p>7 3:25 p.m., and we are back on the</p> <p>8 record.</p> <p>9 BY MR. COLEMAN:</p> <p>10 Q. Can you call up -- well, let's</p> <p>11 refer to -- first to Paragraph 42 of your</p> <p>12 report. It's about exports. And the first</p> <p>13 line of Paragraph 42 is: The evidence</p> <p>14 indicates starting around 2009, defendant</p> <p>15 processors and Agri Stats made exporting pork</p> <p>16 to keep it out of the US market a deliberate</p> <p>17 strategy, right?</p> <p>18 A. Yes.</p> <p>19 Q. You wrote -- and you cite some</p> <p>20 documents that you believe support that</p> <p>21 proposition, right?</p> <p>22 A. Yes.</p> <p>23 Q. And one of the documents you cited</p> <p>24 is -- we see at Tab 47, the Bates number</p> <p>25 SPF00294998, right?</p>  | <p>1 <b>conspiracy, does it?</b></p> <p>2 A. I would have to read the whole</p> <p>3 paragraph. Just give me one second. You</p> <p>4 just want me to address that paragraph?</p> <p>5 Q. Sure.</p> <p>6 A. Hold on one second.</p> <p>7 I think I grant you that the rest</p> <p>8 of those examples provided in that paragraph</p> <p>9 seem to be unrelated to the challenge</p> <p>10 conduct.</p> <p>11 Q. And this is an independent, or at</p> <p>12 least nondefendant -- the document was</p> <p>13 produced by Informa Economics, which is a</p> <p>14 nondefendant, right?</p> <p>15 A. Well, they're a nondefendant.</p> <p>16 They might work for defendants, but they're</p> <p>17 not a defendant. That's correct.</p> <p>18 Q. And Informa Economics doesn't say</p> <p>19 anything about deliberate strategy of pork</p> <p>20 producers to coordinate on export of pork</p> <p>21 products, does it?</p> <p>22 A. That's correct. Fair.</p> <p>23 Q. At the end of that paragraph, it</p> <p>24 says: Informa is of the belief that a</p> <p>25 forecast of a 4 percent decline in exports in</p> |

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| Page 241   | Page 243  |
| <p>1 2012 is being optimistic and could have some<br/>2 downside risk.</p> <p>3 Do you see that?</p> <p>4 A. Yes.</p> <p>5 Q. And, in fact, there was a decline<br/>6 in exports that year, right?</p> <p>7 MR. RISSMAN: Objection.</p> <p>8 Mischaracterizes the document.</p> <p>9 A. Well, it -- you couldn't know that<br/>10 from the document because the document was<br/>11 produced in '11, so I can't tell you what<br/>12 happened in '12.</p> <p>13 BY MR. COLEMAN:</p> <p>14 Q. This was a forecast. Informa<br/>15 was -- their forecast of the market was there<br/>16 would be a decline in exports, and my<br/>17 question is whether you know whether that<br/>18 actually happened?</p> <p>19 A. No, I don't.</p> <p>20 Q. And we go to 5002 -- yeah. So go<br/>21 up above that graph.</p> <p>22 A. Okay.</p> <p>23 Q. There's a reference to culling the<br/>24 sow herd, and it says: In particular, but<br/>25 given the strength in cull sow prices,</p>   | <p>1 sow herd.</p> <p>2 Do you have an opinion on that?</p> <p>3 A. No, I don't have opinion, but I<br/>4 would -- I think it's consistent with the<br/>5 theory of harm, with the allegations in the<br/>6 case, that some liquidation would have<br/>7 occurred even in a but-for world. I don't<br/>8 think that the theory of harm posits that<br/>9 liquidation would be zero.</p> <p>10 And there could be good<br/>11 justification for a particular liquidation.</p> <p>12 The -- the theory of harm as spelled out in<br/>13 the complaint is that there are -- some of<br/>14 the incremental liquidation that occurred can<br/>15 be attributed to the challenged conducts.</p> <p>16 Q. And you -- you don't quantify how<br/>17 much?</p> <p>18 A. I'm trying to estimate prices in<br/>19 the processor market, and that meant --<br/>20 exercise to me is an academic one. It would<br/>21 not inform what I'm trying to estimate in my<br/>22 report.</p> <p>23 Q. In any case, the replacement of<br/>24 older sows with younger and fresher genetics<br/>25 would be procompetitive, right?</p> |
| Page 242   | Page 244  |
| <p>1 producers were able to replace the older sows<br/>2 with younger and fresher genetics are<br/>3 receiving the top value for the culls.</p> <p>4 Do you see that?</p> <p>5 A. Yes.</p> <p>6 Q. But did your model account for the<br/>7 price that Tyson or Smithfield obtained for<br/>8 the sows that they liquidated?</p> <p>9 A. No. I'm trying to estimate prices<br/>10 in a different market -- in a relevant market<br/>11 here to process for clients, so I'm trying to<br/>12 control --</p> <p>13 (Simultaneous unreportable<br/>14 crosstalk.)</p> <p>15 MR. COLEMAN: In any case --</p> <p>16 MR. RISSMAN: Let the witness<br/>17 complete his question.</p> <p>18 A. I just wanted to add that I'm<br/>19 trying to control for factors that would<br/>20 affect prices in the relevant market, not in<br/>21 the upstream market.</p> <p>22 BY MR. COLEMAN:</p> <p>23 Q. Yeah. I'm just interested in<br/>24 whether Smithfield made -- or Tyson made<br/>25 economically sound decisions to cull their</p> | <p>1 MR. RISSMAN: Object to form.<br/>2 Calls for a legal conclusion.<br/>3 A. I don't think that that<br/>4 motivation, as you have just described it,<br/>5 has any kind of anticompetitive tint to it.</p> <p>6 BY MR. COLEMAN:</p> <p>7 Q. Coming back to the -- there was<br/>8 some question and answer earlier about the<br/>9 benchmark period versus the conspiracy<br/>10 period.</p> <p>11 So to some extent, I think you've<br/>12 addressed this already, but I want to revisit<br/>13 it. I will just ask you, how did you go<br/>14 about choosing the benchmark period?</p> <p>15 A. Well, the benchmark period was a<br/>16 clean period in which the alleged challenged<br/>17 conduct -- I should say, in which the<br/>18 challenged conduct was absent. And so that's<br/>19 the 2005 to 2008 period that we are using as<br/>20 the clean period.</p> <p>21 Q. And Paragraph 151 of your<br/>22 report -- and I will give you a minute to get<br/>23 there.</p> <p>24 A. Paragraph -- give it to me again.</p> <p>25 Q. 151. This is in your</p>  |

| Page 245   | Page 247   |
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| <p>1 <b>quantitative.</b></p> <p>2 A. Okay.</p> <p>3 Q. You write that the -- quote, the</p> <p>4 percentage change in price associated with</p> <p>5 the challenged conduct is given by B1 or beta</p> <p>6 one --</p> <p>7 A. Right.</p> <p>8 Q. -- end quote, which I take is the</p> <p>9 regression coefficient for that dummy</p> <p>10 variable, right?</p> <p>11 A. Correct.</p> <p>12 MR. RISSMAN: I'm sorry. Craig,</p> <p>13 are you on -- you are on</p> <p>14 Paragraph 151?</p> <p>15 MR. COLEMAN: Yes.</p> <p>16 MR. RISSMAN: Okay. I think the</p> <p>17 screen is not with you.</p> <p>18 There we go.</p> <p>19 THE WITNESS: I'm looking at my</p> <p>20 report.</p> <p>21 BY MR. COLEMAN:</p> <p>22 Q. And it says: The equation above,</p> <p>23 the percentage change in price associated</p> <p>24 with challenged conduct is given by B1 or</p> <p>25 beta one, right?</p>  | <p>1 the -- during the conduct period. It is</p> <p>2 telling us what the effect is across the</p> <p>3 entirety of the conduct period. So I will</p> <p>4 leave it at that.</p> <p>5 Q. And can your model tell us the</p> <p>6 amount of overcharge in any particular time</p> <p>7 frame, like, say, a given month in a given</p> <p>8 year at any point in the time period?</p> <p>9 A. Well, you could -- using my model,</p> <p>10 you could go make a prediction within a</p> <p>11 particular month if you were very interested</p> <p>12 in a particular month for some reason. You</p> <p>13 could make a prediction of what the prices</p> <p>14 would have been in the absence of the</p> <p>15 challenged conduct, and you can compare those</p> <p>16 prices to the actual prices, if you were so</p> <p>17 inclined.</p> <p>18 Now, there's no apriority reason</p> <p>19 to do that given that the allegations are for</p> <p>20 an alleged conspiracy that spanned from 2009</p> <p>21 to 2018. So number one, you wouldn't be</p> <p>22 testing the theory of the case, the theory of</p> <p>23 harm.</p> <p>24 And number two, I haven't seen any</p> <p>25 -- I'm not aware of any record evidence that</p>  |
| Page 246   | Page 248   |
| <p>1 A. Right.</p> <p>2 Q. And if the percentage changed</p> <p>3 given by beta one is positive, this implies</p> <p>4 the challenged conduct is associated with an</p> <p>5 increase in pork prices holding other factors</p> <p>6 constant, right?</p> <p>7 A. Correct.</p> <p>8 Q. Can you just explain how we should</p> <p>9 interpret percentage changes in beta one?</p> <p>10 What you mean by that?</p> <p>11 A. Right. So in a -- in a -- we do</p> <p>12 it -- do it in levels in, and we do it in</p> <p>13 logs. And so I think the log model is</p> <p>14 probably the easiest one to explain, and that</p> <p>15 quite literally is telling you the percentage</p> <p>16 change in prices that can be attributed to</p> <p>17 the presence of the challenged conduct.</p> <p>18 Q. And so if we look at particular</p> <p>19 time periods, like, say, a month, like</p> <p>20 January 2010, just to pick an example, does</p> <p>21 your model tell us anything about the</p> <p>22 overcharge in that particular month?</p> <p>23 A. The way that the model is</p> <p>24 constructed now, it doesn't tell us anything</p> <p>25 specific about the particular month during</p> | <p>1 would suggest that we should go looking for a</p> <p>2 structural break in January of 2010; that is,</p> <p>3 there's no suggestion that the information</p> <p>4 exchange was any more or less wholesome in</p> <p>5 January of 2010.</p> <p>6 The information exchange of</p> <p>7 competitively sensitive information was the</p> <p>8 same across the challenged conduct -- across</p> <p>9 the conduct period.</p> <p>10 Q. Do you know whether every</p> <p>11 defendant subscribed to all the Agri Stats</p> <p>12 report throughout the time period?</p> <p>13 A. I got a chart that shows you which</p> <p>14 ones each defendant subscribed to in each</p> <p>15 year. But, you know, I know you want this to</p> <p>16 be a memorization test, but I can't tell you</p> <p>17 which boxes are checked by memory. We can go</p> <p>18 to the table.</p> <p>19 Q. Coming back to 151 and beta one in</p> <p>20 that line of questioning, so does it mean --</p> <p>21 is it your opinion that, for example, the</p> <p>22 direct purchasers of class products paid a</p> <p>23 12.8 percent overcharge in every month from</p> <p>24 January of 2009 to June of 2018?</p> <p>25 A. I think that the model I've</p> |

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| <p>1 constructed, which constrains the parameter<br/>2 to be the same across the challenged conduct<br/>3 period -- the conduct period would suggest<br/>4 that it was the same overcharge in each<br/>5 month. That's correct.</p> <p>6     <b>Q. So in each incremental month from<br/>7 January 1, 2009, through the end of the<br/>8 conspiracy period, it's your opinion that<br/>9 there was an overcharge of a specified<br/>10 amount.</b></p> <p>11     <b>Here it's 12.8 percent for direct<br/>12 purchasers of class products?</b></p> <p>13     A. I can conceive -- I think that in<br/>14 reality that the inflation likely varied<br/>15 slightly over time, but this model and this<br/>16 specification, which constrains the parameter<br/>17 to be the same across the entirety of the<br/>18 conduct period, the best prediction that I<br/>19 would have for your favorite month, which is<br/>20 January 2010, would be the parameter is<br/>21 estimated.</p> <p>22     <b>Q. So does it mean that -- it's not<br/>23 my favorite month. I'm just picking that as<br/>24 an example, just to have a point of<br/>25 reference.</b></p>   | <p>1 <b>one point in time, the model assumes that the<br/>2 conspiracy had the same effect?</b></p> <p>3     A. The model doesn't assume it,<br/>4 right. I'm constraining the parameter to be<br/>5 the same across the conduct period. That's<br/>6 my design because, as I told you, I think<br/>7 that's most consistent with the plaintiff's<br/>8 theory of harm as a single conspiracy that<br/>9 spanned the duration of the conduct period.<br/>10     If I thought that plaintiffs were<br/>11 asserting a series of mini conspiracies that<br/>12 are stacked against each other in time, we<br/>13 could have done something differently, but<br/>14 that's not what I understand the theory of<br/>15 harm to be.</p> <p>16     <b>Q. Did you do anything to evaluate<br/>17 whether there were periods during the class<br/>18 period in which overcharges were less than<br/>19 the average?</b></p> <p>20     A. No. You know, economics and<br/>21 econometrics teachings is very clear in this,<br/>22 that we don't go looking for structural<br/>23 breaks without a good a priori reason. If<br/>24 you do so, it is arbitrary, and you could<br/>25 reach the wrong inference.</p> |
| Page 250   | Page 252   |
| <p>1     <b>But is your testimony -- your<br/>2 opinion mean that regardless of the specific<br/>3 actions that defendants took, your model<br/>4 assumes that the alleged conspiracy had the<br/>5 same effect in every month?</b></p> <p>6     A. No, that's not -- that's not what<br/>7 it means. The model as constructed here is<br/>8 seeking to estimate an effect that stretched<br/>9 over the entirety of the challenged conduct<br/>10 for the conduct period. The plants are not<br/>11 asserting a sequence of mini conspiracies,<br/>12 you know, lasting one month apiece.<br/>13     If they were, if that were the<br/>14 allegation, you know, we could go out and<br/>15 test for differential effects by month, but<br/>16 they're not. They're alleging a single<br/>17 conspiracy that spanned the duration of the<br/>18 conduct period, and I will leave it at that.</p> <p>19     <b>Q. But the levers of the conspiracy<br/>20 are multifaceted and -- whether it's exports<br/>21 or sow reductions or something else?</b></p> <p>22     A. Or price hikes -- or price hikes,<br/>23 yes.</p> <p>24     <b>Q. Sure. And so is it your opinion<br/>25 that regardless of what levers were pulled at</b></p> | <p>1     So, you know, I go back to this,<br/>2 that what you're positing isn't consistent<br/>3 with a theory of harm. And also there is no<br/>4 a priori reason in the record to suggest that<br/>5 the conspiracy would have turned off or would<br/>6 have been less potent in January of 2010 than<br/>7 in any other month.<br/>8     So for those reasons, I don't do<br/>9 it. And economic -- econometric teachings<br/>10 would counsel not doing it.</p> <p>11     <b>Q. You are aware that there was a<br/>12 significant expansion of processing capacity<br/>13 late in the class period that was, you know,<br/>14 planned for and -- as early 2014 or 2015,<br/>15 right?</b></p> <p>16     MR. RISSMAN: Object to form.<br/>17     A. I don't have a variable for<br/>18 processing capacity, so I can't say that<br/>19 that's something that I have studied.<br/>20 BY MR. COLEMAN:<br/>21     <b>Q. So, for example, Clemens opened a<br/>22 new plant during the class period, right?</b><br/>23     A. It's possible they did.<br/>24     <b>Q. And Triumph Seaboard opened a new<br/>25 plant as well, right?</b></p>  |

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| 1 A. I mean, the class period is a very<br>2 long duration in time, so I would be<br>3 surprised if there were no openings.<br><br>4 Q. Really? I thought we had the<br>5 existence of a cartel restricting pork<br>6 supply.<br><br>7 A. You interpret that --<br>8 (Simultaneous unreportable<br>9 crosstalk.)<br><br>10 A. I know -- I know of your<br>11 confusion, but go ahead.<br><br>12 Q. Well, I would have thought that<br>13 individual defendants investing tens or<br>14 hundreds of millions of dollars to build a<br>15 new packing plant to increase the supply of<br>16 pork products would be conduct dramatically<br>17 at odds with a conspiracy to restrict the<br>18 supply of pork, right?<br><br>19 A. Not at all. Not at all.<br><br>20 Q. Okay. Go ahead and explain.<br>21 A. Because you are interpreting the<br>22 conspiracy to mean that they -- it was a<br>23 conspiracy to shut output or keep their<br>24 capacity down to zero. That's not what's<br>25 being alleged. What is being alleged is that   | Page 253<br><br>1 the concept of a structural break in the<br>2 class period. And I would have thought that<br>3 an individual defendant's decision to invest<br>4 in a new packing plant and significantly<br>5 expand production would have been a good<br>6 example of that, and you could have tested<br>7 whether -- the impact of that on an<br>8 overcharge, right?<br>9 MR. RISSMAN: Objection.<br>10 Compound.<br>11 A. I think you're getting confused<br>12 about -- about how I construct the conduct<br>13 variable. The conduct variable is equal to<br>14 one with the advent of Agri Stats' reports<br>15 that permitted and facilitated cartel-like<br>16 behavior, right.<br>17 And so it sounds like what you're<br>18 saying is I should depart from my<br>19 construction of the conduct variable, the way<br>20 I've done it, and redo it whenever someone<br>21 expands capacity.<br>22 And so, no, no, that's not what<br>23 I'm trying to capture. I'm trying to capture<br>24 the effect of the challenged conduct on<br>25 prices controlling for all of the things.  |
| Page 254<br><br>1 they took actions to tamper output relative<br>2 to what it would have been in the but-for<br>3 world.<br>4 So it's conceivable that we could<br>5 see capacity growing over time, and the<br>6 relevant question is, you know, would<br>7 capacity have been greater in a but-for world<br>8 absent the challenged conduct.<br>9 I know you look at the -- at an<br>10 increase and say, aha, that's evidence that<br>11 there's no conspiracy, but that's not how an<br>12 economist looks at it. An economist is<br>13 thinking about the margin -- the marginal<br>14 effect of the challenged conduct on capacity<br>15 at any point in time.<br>16 So the mere fact that you have<br>17 something going up is largely irrelevant.<br>18 It's kind of, you know, something -- you will<br>19 hear lawyers say something like, oh, prices<br>20 fell, so, therefore, there couldn't have been<br>21 a price effect in that month.<br>22 No. The question is: Did prices<br>23 fall by less than they would have in the<br>24 absence of a conspiracy?<br>25 Q. Well, a structural -- you refer to | Page 254<br><br>1 I'm not going to -- I'm not going to revisit<br>2 my construction of the conduct parameter in<br>3 light of new capacity coming.<br>4 BY MR. COLEMAN:<br>5 Q. Your testimony was that there was<br>6 a conspiracy to -- I believe the word you<br>7 used was tamp down the supply of pork, right?<br>8 A. Domestic supply of pork, yes.<br>9 Q. And a decision by defendants to<br>10 build new packing plants is at odds with<br>11 that -- the goal of that conspiracy, isn't<br>12 it?<br>13 A. No, because the relevant question<br>14 is what the capacity would have looked like<br>15 in a but-for world absent the challenged<br>16 conduct. So the fact that you can point to<br>17 an episode of capacity expansion, right,<br>18 doesn't tell me anything about the effect of<br>19 the conduct on capacity.<br>20 And moreover, I just want to kind<br>21 of refocus. I'm trying to predict the effect<br>22 of the alleged conspiracy on pricing. My<br>23 model is a pricing model. I'm not trying to<br>24 predict capacity in the marketplace. Had<br>25 I've done so, then, you know, it would have |

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| 1 been a completely different model with<br>2 completely different control variables, but<br>3 that's not what I'm trying to model.<br><br><b>4 Q. How many pork processing plants<br/>5 would have been built in the class period but<br/>6 for the conspiracy?</b><br><br>7 A. Again, I'm not -- I am modeling<br>8 capacity. Had my model been pointed at<br>9 capacity, I could tell you the answer to that<br>10 question. I'm trying to model the effect of<br>11 prices from the challenged conduct.<br><br><b>12 Q. You're telling me that capacity<br/>13 was constrained in the world that you studied<br/>14 versus the but-for world, and that my<br/>15 question is missing the mark because in the<br/>16 but-for world, there would have been<br/>17 something better than what actually happened,<br/>18 and I want to know how.</b><br><br>19 A. Right. So in the qualitative<br>20 section -- I think that there may be<br>21 confusion about my two models. So I have<br>22 one -- I have a quantitative model. That's a<br>23 regression model. It's trying to model the<br>24 prices in the but-for world.<br><br>25 And in the qualitative section, I                   | Page 257<br><br><b>1 I did read your report and took note of<br/>2 allegations about -- or claims about Saturday<br/>3 shifts being reduced, and wondering<br/>4 whether you think there was any agreement,<br/>5 coordination, otherwise about the<br/>6 construction of new packing plants?</b><br><br>7 MR. RISSMAN: Objection. Calls<br>8 for a legal conclusion.<br>9 A. Well, I don't include that in the<br>10 levers that I review. If you look at the<br>11 levers I review, liquidation concerns the<br>12 upstream market, and then harvest reduction<br>13 and exports, which concerns the relevant<br>14 processing market. Exports being things that<br>15 would have otherwise sold -- some of which<br>16 would have otherwise sold in the United<br>17 States.<br><br>18 So as I hear your question, a<br>19 conspiracy to reduce capacity with other --<br>20 with other providers. Is that what -- is<br>21 that what the question is?<br>22 BY MR. COLEMAN:<br><b>23 Q. Yeah. And I guess -- I mean, to<br/>24 cut to the chase, you don't have any reason<br/>25 to believe that there would have been more</b> |
| Page 258<br><br>1 am looking at record evidence that's<br>2 consistent with the allegations of the<br>3 complaint, namely, an attempt to suppress<br>4 output. And I point to a lot of record<br>5 evidence that's consistent with that. And so<br>6 when I see record evidence that suggests that<br>7 firms are coordinating the decisions on<br>8 output, that tells me that that coordination<br>9 allowed them to lower output relative to the<br>10 but-for world.<br><br>11 That does not tell me that output<br>12 has to be falling necessarily in the actual<br>13 world. It just tells me that output is lower<br>14 than it would have been absent the conduct.<br><br><b>15 Q. And with respect to processing<br/>16 capacity, are you referring to the Saturday<br/>17 shifts or something else?</b><br><br>18 A. Anything. I have a -- I have an<br>19 entire -- I will send you to the section of<br>20 my report where I try to inform the<br>21 three-part test that economists use to make<br>22 qualitative assessments of a likelihood of a<br>23 conspiracy.<br><br><b>24 Q. Well, I'm focused on what conduct<br/>25 occurred that restricted processing capacity.</b> | Page 259<br><br><b>1 packing plants but for the conspiracy?</b><br>2 MR. RISSMAN: Objection. I'm<br>3 going to instruct the witness to only<br>4 testify to that if he has an opinion<br>5 on that and is offering that in this<br>6 case.<br>7 A. I'm not offering that. I don't<br>8 have an opinion there.<br>9 BY MR. COLEMAN:<br><b>10 Q. And so, again, I'm getting at your<br/>11 testimony here. You admonished me for not<br/>12 properly comparing the world that happened to<br/>13 the but-for world, and I want to know what<br/>14 the but-for world would have looked like.<br/>15 We don't know whether there would<br/>16 have been -- you don't know or haven't<br/>17 offered an opinion about whether there would<br/>18 have been more packing plants, right?</b><br>19 A. I'm not offering an opinion on the<br>20 number of packing -- packing plants, no.<br>21 <b>Q. And I mean, is your opinion that<br/>22 there would have been more Saturday shifts<br/>23 run in the but-for world?</b><br>24 A. I cite to evidence suggesting<br>25 that -- that some of these decisions with                         |

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| <p>1 respect to harvest reduction could have been<br/>2 flown from -- or could have -- could have<br/>3 been motivated by or could have occurred as a<br/>4 result of the challenged conduct, but I'm not<br/>5 offering an opinion as to -- as to the number<br/>6 of Saturdays that would have been operational<br/>7 in the but-for world. I'm not offering on<br/>8 opinion on that.</p> <p><b>9 Q. And when you point to decisions<br/>10 about, quote/unquote, harvest reductions, are<br/>11 you aware or are you pointing to any<br/>12 decisions by any defendant to reduce its<br/>13 annual harvest of hogs during that class<br/>14 period?</b></p> <p>15 A. Well, I think that -- we can go to<br/>16 that section, but I think that I do give<br/>17 episodes of defendants making decisions to<br/>18 reduce their harvest.</p> <p>19 Q. I'm specifically interested in the<br/>20 concept of the annual harvest versus a<br/>21 Saturday shift and that -- the timing of<br/>22 harvest.</p> <p>23 Do you know whether any defendant<br/>24 reduced the number of harvest days, for<br/>25 example, in a year during the class period?</p> | <p>1 A. Well, you are -- you are accepting<br/>2 that they were doing it for maintenance<br/>3 reasons. The question is whether or not this<br/>4 shutdown was derived from the challenged<br/>5 conduct.</p> <p><b>6 Q. And you don't know, do you?</b></p> <p>7 A. Well, I --</p> <p>8 MR. RISSMAN: Object to form.</p> <p>9 A. I'm offering evidence that's<br/>10 consistent with the alleged conspiracy,<br/>11 right. It's hard for me to say here<br/>12 definitively that that came from it, but, you<br/>13 know, I mean, the record evidence says what<br/>14 it says.</p> <p>15 BY MR. COLEMAN:</p> <p><b>16 Q. There's a lot of conduct that you<br/>17 say is consistent with challenged conduct,<br/>18 but in this instance, it's also consistent<br/>19 with Smithfield's plant needing maintenance,<br/>20 right?</b></p> <p>21 MR. RISSMAN: Object to form.</p> <p>22 BY MR. COLEMAN:</p> <p><b>23 Q. How do we know which is which?</b></p> <p>24 MR. RISSMAN: Object to form.</p> <p>25 A. I think that some record evidence</p>  |
| Page 262   | Page 264  |
| <p>1 A. Well, I think that if you shut<br/>2 down Saturdays, that would affect the number<br/>3 of days in the year.</p> <p><b>4 Q. Did any defendant shut down<br/>5 Saturdays?</b></p> <p>6 A. I think we have discussed this<br/>7 before.</p> <p><b>8 Q. Episodically, maybe a Saturday<br/>9 here or there. But did any defendant reduce<br/>10 the number of harvest days they had year to<br/>11 year?</b></p> <p>12 A. No. We can go through each line,<br/>13 you know, in 164. An internal Hormel e-mail<br/>14 states that Smithfield shut down their Tar<br/>15 Heel plant last week -- one day last week,<br/>16 and they are doing the same this week for<br/>17 maintenance, which Hormel said was more like<br/>18 manipulating the market, and it was doing<br/>19 it -- doing the same for hams.</p> <p><b>20 Q. Did that reduce Smithfield's<br/>21 annual production that year?</b></p> <p>22 A. It could have.</p> <p><b>23 Q. Is it anticompetitive to reduce<br/>24 the plant for maintenance or to close the<br/>25 plant for maintenance?</b></p>   | <p>1 in the qualitative section is more consistent<br/>2 with -- with conduct from a cartel than<br/>3 others, and then there's some evidence that<br/>4 could be consistent with both.</p> <p>5 And I feel like I'm not prepared<br/>6 to make a determination that that evidence<br/>7 alone has constituted anticompetitive<br/>8 conduct. What my position is, and has been<br/>9 all along, is that it's the combination of<br/>10 the quantitative model that shows unexplained<br/>11 inflation among defendants' prices during the<br/>12 conduct period, plus the record evidence,<br/>13 that allows me to conclude that this conduct<br/>14 is more consistent with the cartel than with<br/>15 unilateral behavior.</p> <p>16 BY MR. COLEMAN:</p> <p><b>17 Q. Are you aware of any specific<br/>18 Saturday slaughter that a defendant decided<br/>19 to go or you can pinpoint it to a deliberate<br/>20 effort to facilitate the supposed conspiracy?</b></p> <p>21 MR. RISSMAN: Objection. Calls<br/>22 for a legal conclusion.</p> <p>23 A. Yeah. I don't know how one would<br/>24 go about designing a test for something like<br/>25 that. So what I did was -- you saw what I</p> |

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| 1 did. I've reviewed evidence that's<br>2 consistent with --<br>3 BY MR. COLEMAN:<br>4 <b>Q. Right.</b><br>5     A. -- a decision to reduce output as<br>6 part of a coordinated information-sharing<br>7 scheme.<br>8 <b>Q. Is there a single document that</b><br>9 <b>you reviewed in which a defendant indicates</b><br>10 <b>that it chose not to run a Saturday shift</b><br>11 <b>because it wanted to facilitate a conspiracy</b><br>12 <b>to reduce pork supply?</b><br>13     A. I don't think that you're going to<br>14 find a document -- I mean, it's possible, but<br>15 I've cited one -- but I don't think you're<br>16 going to find, generally, documents that say,<br>17 the reason why we are doing this is to<br>18 promote the well being of our conspiracy.<br>19         I mean, defendants aren't going to<br>20 put something like that in writing. So what<br>21 we have to do instead is we have to look at<br>22 the quantitative evidence of the pricing,<br>23 which I've done, and see if there was an<br>24 unexplained price hike around the time the<br>25 challenged conduct. And then we look at | 1     A. Okay.<br>2 <b>Q. And so the first question is:</b><br>3 <b>What's the expected sign for the price of</b><br>4 <b>pork substitutes, i.e., beef -- the beef,</b><br>5 <b>chicken price index?</b><br>6     A. Positive.<br>7 <b>Q. And why is that?</b><br>8     A. That as the price of a week<br>9 substitute goes up, the demand for pork<br>10 should go up as well, and that would put<br>11 upward pressure on prices.<br>12 <b>Q. If we looked at Paragraph 192 and</b><br>13 <b>Table 23, does it appear that you have a</b><br>14 <b>negative sign on the beef, chicken price</b><br>15 <b>index?</b><br>16     A. I think you just pointed me to<br>17 the -- I'm on Paragraph 160. Do you want me<br>18 to change paragraphs?<br>19 <b>Q. Yeah. Go ahead and look at</b><br>20 <b>Table 23, which is attached to 192.</b><br>21     A. Sorry. Page 193?<br>22 <b>Q. Paragraph 192.</b><br>23     A. Paragraph 192. I'm heading there.<br>24 Okay. I'm in Paragraph 192.<br>25 <b>Q. And do you have a negative sign on</b>   |
| Page 266   | Page 268   |
| 1 record evidence that's consistent with the<br>2 cartel and meets the economic criteria.<br>3         But I can tell you that I'm not<br>4 going to make a conclusion based exclusively<br>5 on the record evidence that I've looked at<br>6 under the qualitative criteria. All the<br>7 qualitative criteria can do for an economist<br>8 is kind of point in that direction or to show<br>9 that the hypothesis -- the anticompetitive<br>10 hypothesis is plausible.<br>11         And then I go out and I test the<br>12 hypothesis empirically, using the<br>13 quantitative methods. It's the combination<br>14 of the two. That allows me to make the<br>15 inference that I do that this -- this conduct<br>16 appears to be anticompetitive.<br>17 <b>Q. Why don't you turn to 160.</b><br>18     A. Page 160?<br>19 <b>Q. I am sorry. Paragraph 160 in your</b><br>20 <b>report.</b><br>21     A. Okay.<br>22 <b>Q. I will get there, too. Not that</b><br>23 <b>I'm looking to quote it, but I just want to</b><br>24 <b>orient you to what I am -- some of the</b><br>25 <b>questions are directed.</b>                  | 1 <b>the beef, chicken price index for your belly</b><br>2 <b>by cut overcharge regression?</b><br>3     A. You can't see that from Table 23.<br>4 <b>Q. Do you know whether you do?</b><br>5     A. No, I don't know whether I do.<br>6 <b>Q. In your mind, the sign should be</b><br>7 <b>positive, in any case?</b><br>8     A. It should be positive. But<br>9 sometimes the signs don't work out the way<br>10 you expect. But you're telling me for a<br>11 particular -- what did you think the sign was<br>12 negative for the belly?<br>13 <b>Q. Yeah. The beef, chicken price</b><br>14 <b>index --</b><br>15     A. I know. But for which --<br>16 <b>Q. -- for the belly -- for the belly</b><br>17 <b>by cut overcharge regression.</b><br>18     A. Yeah. I would have to look at the<br>19 coefficients, but I would note that the<br>20 belly, you know, accounts for the 3 percent<br>21 of the sales -- defendant sales, but it is --<br>22 you know, I will leave it at that. I don't<br>23 know that it has the wrong sign.<br>24 <b>Q. Okay. And how about your bacon by</b><br>25 <b>cut overcharge regression? Do you know what</b> |

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| Page 269   | Page 271   |
| <p>1 <b>the sign was on that?</b></p> <p>2 A. On the --</p> <p>3 (Simultaneous unreportable</p> <p>4 crosstalk.)</p> <p>5 Q. If you don't, then I guess I would</p> <p>6 take what you would expect it to be.</p> <p>7 A. I would expect it to be positive,</p> <p>8 yes.</p> <p>9 Q. Would you -- I mean, sitting here</p> <p>10 today -- I'm not trying to put you on the</p> <p>11 spot, but would you think it was an error if</p> <p>12 it was negative?</p> <p>13 A. Oh, no. Oh, no. No, no, no.</p> <p>14 This happens all the time in econometrics,</p> <p>15 that you do a slice of the data for some</p> <p>16 subset of the cuts, and one of your 20</p> <p>17 control variables shows the wrong sign. I</p> <p>18 mean, does that cause you to lose faith in</p> <p>19 the model? Absolutely not.</p> <p>20 Q. And can you give any sort of</p> <p>21 description at what point you would start to</p> <p>22 have concerns about the model if it had</p> <p>23 unexpected results like that?</p> <p>24 A. No. I think that -- I think that</p> <p>25 we would evaluate the model as -- from</p>  | <p>1 cite to Professor Wooldridge quite a bit as</p> <p>2 an authority on econometrics.</p> <p>3 Who is -- who is Professor</p> <p>4 Wooldridge, and why do you view him as</p> <p>5 authoritative?</p> <p>6 A. Well, he has one of the seminal</p> <p>7 textbooks on econometrics, and I've just been</p> <p>8 using it for a big portion of my career, and</p> <p>9 I think that even in grad school, it may have</p> <p>10 been the textbook that was used.</p> <p>11 Q. And do you accept him as</p> <p>12 authoritative on how to do econometrics?</p> <p>13 A. I do. I accept that textbook as</p> <p>14 being authoritative, yes.</p> <p>15 Q. What's the expected sign for GDP</p> <p>16 per capita? Again, if you -- you could use</p> <p>17 Paragraph 160 as a reference point, if it's</p> <p>18 helpful.</p> <p>19 A. It should be positive.</p> <p>20 Q. And why is that?</p> <p>21 A. That all things equal, an increase</p> <p>22 in income would put upward pressure on prices</p> <p>23 in the relevant market.</p> <p>24 Q. Okay. And how about the expected</p> <p>25 sign for hog costs?</p>   |
| <p>Page 270</p> <p>1 Table 12 on Page 125. This is across all</p> <p>2 cuts and controlling for the cut type, you</p> <p>3 know, in the fixed effects. I've got</p> <p>4 processor product and then processor product</p> <p>5 customer.</p> <p>6 And there's where, I think, we</p> <p>7 would make an evaluation that if we had a</p> <p>8 variable -- let's just assume that -- that</p> <p>9 beef, chicken index entered this model as a</p> <p>10 negative consistently. That would -- that</p> <p>11 would suggest to me that I might not be</p> <p>12 measuring the beef, chicken index correctly.</p> <p>13 But the fact that it enters</p> <p>14 positively and statistically significant in</p> <p>15 this general equation gives me confidence</p> <p>16 that, you know, it's the right variable --</p> <p>17 it's a good variable to use.</p> <p>18 And that for a separate cut it</p> <p>19 might change signs does not -- does not cause</p> <p>20 me to lose any faith at all in those kind of</p> <p>21 tire-kicking exercises to make sure that</p> <p>22 no -- no cut was immunized from the</p> <p>23 challenged conduct.</p> <p>24 Q. While we are talking about how to</p> <p>25 evaluate econometric models, I note that you</p> | <p>Page 272</p> <p>1 A. Positive.</p> <p>2 Q. And why is that?</p> <p>3 A. Well, these costs eventually have</p> <p>4 to be recovered in the price in the relevant</p> <p>5 market. So to the extent these hog costs go,</p> <p>6 it's going to put upward pressure on the</p> <p>7 prices in the relevant market.</p> <p>8 Q. And would it undermine your</p> <p>9 confidence and the reliability of your model</p> <p>10 if it coefficient for hog cost is negative</p> <p>11 and not statistically significant?</p> <p>12 A. In one of these special cuts, no</p> <p>13 pun intended, to test whether any defendant</p> <p>14 or cut escaped impact, no.</p> <p>15 Q. Why not?</p> <p>16 A. Because these -- these are being</p> <p>17 designed for different purpose. I mean,</p> <p>18 Table 12 is the model that I'm offering.</p> <p>19 These other -- these other models are tests</p> <p>20 to see whether defendants somehow can't be</p> <p>21 shown to have inflated prices or a particular</p> <p>22 cut can't be shown to have -- to have</p> <p>23 experienced a price increase.</p> <p>24 It's -- when you do selective</p> <p>25 slices of the data this way, it's not that</p> |

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| <p style="text-align: right;">Page 273</p> <p>1 surprising that the sign on a control<br/>2 variable and one of the specifications may<br/>3 flip unexpectedly.</p> <p><b>4 Q. And what's your expected sign for<br/>5 the COVID control?</b></p> <p><b>6 You know, I should help -- help<br/>7 orient you. You can look at Paragraph 156.</b></p> <p>8 A. Okay. So there's a -- there's a<br/>9 supply story that could be told for COVID,<br/>10 which is that to the extent that COVID<br/>11 creates dislocations in supply because, for<br/>12 example, it's hard to staff processing plants<br/>13 because people are getting sick, that could<br/>14 be associated with the increase of prices.</p> <p><b>15 Q. So would you expect the sign on<br/>16 that COVID variable to be positive?</b></p> <p>17 A. Yes, I would, and it is in<br/>18 Table 12. It's positive.</p> <p><b>19 Q. And expected to be statistically<br/>20 significant?</b></p> <p>21 A. And it is always in Table 12.</p> <p><b>22 Q. And would it -- does it cause you<br/>23 any trouble if some of the cuts -- specific<br/>24 cuts like the rib cut for overcharge<br/>25 regression for the COVID coefficient is</b></p>                   | <p style="text-align: right;">Page 275</p> <p>1 similar tests.</p> <p>2 BY MR. COLEMAN:</p> <p><b>3 Q. Did you view it as important to<br/>4 run separate overcharge models by primal cut?</b></p> <p>5 A. Yeah, I did think it was<br/>6 important. I wanted to -- to run to ground<br/>7 the possibility that a certain type of primal<br/>8 cut escaped impact, and I found the opposite,<br/>9 that all of these cuts had prices that were<br/>10 inflated that were trivial to the challenged<br/>11 conduct.</p> <p><b>12 Q. And what sensitivities did you run<br/>13 outside of the four main models?</b></p> <p>14 A. You mean, the five different<br/>15 subgroups in Table 23?</p> <p><b>16 Q. Yeah.</b></p> <p>17 A. So I did -- I did one by<br/>18 defendant. I did defendant-specific models<br/>19 as well.</p> <p><b>20 Q. Why was it important for you to do<br/>21 that, in your mind?</b></p> <p>22 A. I think that we just want to -- we<br/>23 just want to make sure that no defendant was<br/>24 deviating from the pricing patterns that we<br/>25 observed for the rest of the defendants.</p>  |
| <p style="text-align: right;">Page 274</p> <p><b>1 Q. negative?</b></p> <p>2 A. No.</p> <p><b>3 Q. And why not?</b></p> <p>4 A. Because anything can happen when<br/>5 you go into these selective cuts. I mean,<br/>6 you're losing a bunch of observations, and,<br/>7 you know, COVID may have affected these --<br/>8 these products different than others.</p> <p><b>9 Q. There's a lot of factors that<br/>10 impact the price of any given primal, right?</b></p> <p>11 MR. RISSMAN: Object to form.</p> <p>12 A. I think that in the -- in the<br/>13 models that you have seen, kind of the<br/>14 sensitivity models that you're referring to<br/>15 towards the end of the report, I allowed for<br/>16 the coefficients on all the parameters to<br/>17 vary for each cut and for each defendant.</p> <p>18 And, again, if you were inclined<br/>19 not to allow them to vary, there's a very<br/>20 straightforward econometric technique to<br/>21 constrain all the parameters to be the same<br/>22 across the cuts and across the defendants and<br/>23 just to, what we call interact the conduct<br/>24 variable with defendant dummies or with cut<br/>25 dummies, and we could -- we could perform</p> | <p style="text-align: right;">Page 276</p> <p><b>1 Q. And did you run separate<br/>2 overcharge models by direct purchaser type?</b></p> <p>3 A. I did not.</p> <p><b>4 Q. Why not?</b></p> <p>5 A. I don't think there's good either<br/>6 economic basis for doing it or econometric<br/>7 basis for doing it. You know, you could --<br/>8 you're going to lose so much efficiency and<br/>9 explanatory power by shrinking the data sets,<br/>10 just that of one direct, depending on which<br/>11 direct we are looking at.</p> <p>12 There's really no economic theory<br/>13 that would suggest why one direct purchaser<br/>14 was somehow immunized from the harm that came<br/>15 from the challenged conduct. Just there's<br/>16 a -- there's a lot of reasons that that's not<br/>17 what you do. And then I'm referencing the<br/>18 reference manual and other econometric<br/>19 textbooks, and none of them would -- would<br/>20 suggest running separate regressions by<br/>21 customer. It's just not done.</p> <p><b>22 Q. And did you say -- did you say<br/>23 direct purchaser type or by direct purchaser?</b></p> <p>24 A. I said direct purchaser type. And<br/>25 what I mean by that is, you understand</p> |

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| <p style="text-align: right;">Page 277</p> <p>1 there's a difference between a large grocery<br/>2 retailer that buys direct versus a food<br/>3 service distributor versus a wholesaler or<br/>4 broker.</p> <p><b>5 Q. We could come up with different<br/>6 categories of direct purchasers, right?</b></p> <p>7 A. Right. And I'm sorry. I<br/>8 interpreted your question to mean individual<br/>9 direct purchasers. Do you want me to. Can<br/>10 I -- I think we were talking past each other.</p> <p><b>11 Q. Yeah. You can clarify the record.</b></p> <p>12 A. Okay. So I did in Table 25 run<br/>13 separate models for each subgroup of direct<br/>14 purchaser type. I interpreted your question<br/>15 to mean would I run a separate regression for<br/>16 a given direct purchaser, and the answer is<br/>17 no.</p> <p><b>18 Q. And why did you do that?</b></p> <p>19 A. So why did I present Table 25?</p> <p><b>20 Q. Yes.</b></p> <p>21 A. Yeah. So for 25, I wanted to make<br/>22 sure that there was no large grouping of<br/>23 direct purchasers, you know, by type that<br/>24 somehow escaped antitrust impacts.</p> <p><b>25 Q. Did you run an overcharge model</b></p> | <p style="text-align: right;">Page 279</p> <p>1 and same patterns.</p> <p><b>2 Q. And did you run a model without<br/>3 the -- what you described as the lingering<br/>4 effects period, I believe 156?</b></p> <p>5 A. I did do one sensitivity in which<br/>6 I dropped the post -- the after period, if<br/>7 that's what you're asking about.</p> <p><b>8 Q. Yes.</b></p> <p>9 A. Yes, I did.</p> <p><b>10 Q. And explain why you did that.</b></p> <p>11 A. I wanted to make sure that -- to<br/>12 the extent that the inclusion of the after<br/>13 period was driving the conduct coefficient, I<br/>14 wanted to make sure it wasn't. So the<br/>15 simplest way to do that was just to remove<br/>16 those data.</p> <p>17 And I found, sure enough, that the<br/>18 effect is still positive and statistically<br/>19 significant, albeit different, but it is<br/>20 still positive and statistically significant.</p> <p><b>21 Q. So if we go to Paragraph 158.</b></p> <p>22 A. Okay.</p> <p><b>23 Q. It says in Model 2, Table 12,<br/>24 Column 2, you used a processor-product fixed<br/>25 effects to hold constant individual product</b></p>  |
| <p style="text-align: right;">Page 278</p> <p>1 based on USDA prices?</p> <p>2 A. I did.</p> <p><b>3 Q. And I think I refer you to<br/>4 Table 14.</b></p> <p>5 A. Do you mind telling me the page?</p> <p><b>6 Q. Oh, sorry. I want to say 164 --</b></p> <p><b>7 Paragraph 164.</b></p> <p>8 A. Okay.</p> <p><b>9 Q. So coming back to the -- the<br/>10 question was just whether you ran an<br/>11 overcharged model using USDA prices?</b></p> <p>12 A. And the answer is yes.</p> <p><b>13 Q. And can you explain why you did<br/>14 that?</b></p> <p>15 A. It was another sensitivity test.</p> <p>16 We just wanted to make sure that the patterns<br/>17 that we were detecting and the correlations<br/>18 we were detecting in the defendant data would<br/>19 also be seen in the USDA data.</p> <p>20 Now, the reason why we could do<br/>21 this is because the defendants represent<br/>22 something on the order of 80 percent of the<br/>23 marketplace, and so that gave me confidence<br/>24 that we can look at USDA prices -- wholesale<br/>25 prices writ large to study the same effects</p>   | <p style="text-align: right;">Page 280</p> <p>1 from each defendant. In Model 3, you used a<br/>2 processor-product, customer-type fixed<br/>3 effects, which additionally holds the<br/>4 constant the type of direct purchaser.</p> <p>5 A. Yes.</p> <p><b>6 Q. Do you see that?</b></p> <p>7 A. Yes.</p> <p><b>8 Q. Can you explain what a<br/>9 processor-product fixed effect is?</b></p> <p>10 A. Sure. So now we are giving more<br/>11 information to the model, right. Now we are<br/>12 telling the model, when you're looking at the<br/>13 given transaction, I want you to allow for<br/>14 the fact that if it comes from a particular<br/>15 processor and it covers a particular cut,<br/>16 that that could explain why the price is what<br/>17 it is, whereas in the prior model before you<br/>18 put these fixed effects in, the computer<br/>19 doesn't know that information.</p> <p><b>20 Q. And did you include processor and<br/>21 product fixed effects?</b></p> <p>22 A. The combination. So -- so for the<br/>23 same product type, you know, you get two<br/>24 different dummies depending upon who the<br/>25 processor was.</p> |

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| <p style="text-align: right;">Page 281</p> <p>1     <b>Q. And did you also include customer</b><br/>2     <b>ID fixed effects?</b><br/>3         A. Yes.<br/>4     <b>Q. And why did you do that?</b><br/>5         A. Because it's possible that a<br/>6     certain customer, that is, a certain direct<br/>7     purchaser in the data has a special effect on<br/>8     pricing. We want to be able to control for<br/>9     that if it happens.<br/>10    <b>Q. And what's on a customer side,</b><br/>11   <b>looking at the defendant's side, why is it</b><br/>12   <b>important to account for the particular</b><br/>13   <b>defendant?</b><br/>14         A. Well, we do. In that -- in that<br/>15     fixed effect, it's the combination of the<br/>16     processor product and customer ID that gets<br/>17     its own dummy verdict. So we're controlling<br/>18     for both sides of the transaction, the seller<br/>19     and the buyer, as well as the cut involved.<br/>20    <b>Q. And that reflects the reality that</b><br/>21   <b>different defendants may have different</b><br/>22   <b>variations of the product or different brands</b><br/>23   <b>that could command different prices, right?</b><br/>24         A. Correct. But you asked me about<br/>25     this last one that brought in the customer</p>   | <p style="text-align: right;">Page 283</p> <p>1     up. We talked about exports, and I think you<br/>2     showed me another series that looked fairly<br/>3     linear over time, and anything -- anything<br/>4     that is unfolding in a linear fashion could<br/>5     be picked up in the time travel.<br/>6     <b>Q. So you mentioned technological or</b><br/>7     <b>efficiency increases. Anything specific</b><br/>8     <b>along those lines come to mind?</b><br/>9             It's not a test. If you know, you<br/>10    <b>know. If you don't --</b><br/>11         A. We talked earlier today about<br/>12     efficiency in terms of -- you know, I think<br/>13     we talked about the ability to produce more<br/>14     piglets, you know, given a certain -- certain<br/>15     number of inputs. And so if there's a<br/>16     technological innovation that is unfolding in<br/>17     a linear fashion such as that, you know, it<br/>18     could be -- it could be captured in the time<br/>19     trend.<br/>20    <b>Q. And why wouldn't those kinds of</b><br/>21   <b>technological or efficiency trends be</b><br/>22   <b>captured by the plant cost variable?</b><br/>23         A. Oh, they very well may be. So we<br/>24     just want to make sure that to the extent any<br/>25     of our other control variables are not</p> |
| <p style="text-align: right;">Page 282</p> <p>1     ID, and you left out -- and the question,<br/>2     just to be -- just to be complete is that<br/>3     it's conceivable that a given customer is<br/>4     able to push back on price increases because<br/>5     of countervailing power, and to the extent<br/>6     that that happens, you know, we want to be<br/>7     able to control for that.<br/>8     <b>Q. Yeah. You want to control for</b><br/>9     <b>both sides of the equation, the defendant on</b><br/>10   <b>the one hand or the customer -- the defendant</b><br/>11   <b>or, slash, supplier on the one hand and</b><br/>12   <b>customer on the other?</b><br/>13         A. Correct.<br/>14     <b>Q. In Paragraph 155 -- so apologies</b><br/>15   <b>for bouncing around, but that's where we are</b><br/>16   <b>at now -- you note that you added a linear</b><br/>17   <b>time trend to control for any general changes</b><br/>18   <b>that occurred over time such as technological</b><br/>19   <b>or efficiency increases, which may also have</b><br/>20   <b>had an effect on pork prices.</b><br/>21     <b>Can you explain why you did that?</b><br/>22         A. Yeah. This is fairly standard.<br/>23     It's just any secular trend that's unfolding<br/>24     in a linear fashion could have an effect in<br/>25     prices, and the time trend would pick that</p> | <p style="text-align: right;">Page 284</p> <p>1     capturing things that shift the supply or<br/>2     demand curve around and that are correlated<br/>3     with time, we are going to pick it up in the<br/>4     time trend.<br/>5     <b>Q. So bouncing back up to the fixed</b><br/>6     <b>effects. I meant to ask you about why the</b><br/>7     <b>product fixed effect is important, or why you</b><br/>8     <b>did it.</b><br/>9         A. Yeah.<br/>10    <b>Q. Can you explain?</b><br/>11         A. Yeah. Because knowing -- telling<br/>12     the computer the nature of the product could<br/>13     be highly helpful in predicting what the<br/>14     price was for the transaction that you're<br/>15     looking at.<br/>16    <b>Q. And why is that?</b><br/>17         A. Because different products<br/>18     could -- could command different premiums<br/>19     based on what's being sold. You know, I --<br/>20     you go to a restaurant, you will see pork<br/>21     chops as being a high-end cut that's served,<br/>22     you know, in a menu alongside steaks, and<br/>23     it's conceivable that as a result, the loin<br/>24     or different cuts that contain the meat of a<br/>25     pork chop realize premium in the relevant</p>   |

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| 1 market.<br><br>2 <b>Q.</b> I think we also mentioned brand or<br>3 label or that kind of thing is -- packaging<br>4 product enhancements as -- and other things<br>5 that might affect the product, right?<br><br>6     A. It's possible that -- that the<br>7 processor ID could affect pricing. My<br>8 opinion is, you know, that these products are<br>9 largely homogeneous, but bringing the<br>10 processor ID at least allows for the<br>11 possibility that the processor commands some<br>12 kind of premium or discount relative to<br>13 average prices.<br><br>14 <b>Q.</b> So when you control for hog costs,<br>15 that's -- we had some questions and answers<br>16 about that this morning. I think we<br>17 ascertained that you control for hog costs by<br>18 using a data series provided by Iowa State<br>19 University; is that right?<br><br>20     A. Correct.<br><br>21 <b>Q.</b> And I could direct you to<br>22 Paragraph 153, if that's helpful.<br><br>23     A. Yes.<br><br>24 <b>Q.</b> But I'm specifically interested in<br>25 what -- what you know about what costs are                    | Page 285<br><br>1 productivity or corn prices or soybean<br>2 prices, et cetera, in generating that data<br>3 set?<br><br>4     A. No, I don't -- I don't know of the<br>5 assumptions, but certainly productivity<br>6 would -- could influence these costs. So I<br>7 would hope that those sorts of productivity<br>8 changes would already be impounded in this<br>9 price that we are looking at.<br><br>10 <b>Q.</b> Coming back to your model and how<br>11 you tested for impact and a comparative<br>12 impact.<br><br>13         Did you always subtract the same<br>14 overcharge percentage from the predicted<br>15 price to arrive at the but-for price?<br><br>16     A. No. No. So to get the but-for<br>17 price during the conduct period, I take all<br>18 the right-hand side variables in the model,<br>19 all right, and I use those values for that<br>20 transaction, and I predict using all of the<br>21 coefficients in the model, not just the --<br>22 not just the conduct parameter, but I use all<br>23 of the coefficients to make a prediction of<br>24 what the price would have been in the absence<br>25 of the challenged conduct, and then I |
| Page 286<br><br>1 captured by that variable.<br><br>2     A. So there's a description of my<br>3 understanding of what's going into the<br>4 variable, and it's right in the middle of<br>5 153, and it says: The change in cost of<br>6 animal feed composed of ingredients such as<br>7 the cost of corn and soybean meal as well as<br>8 nonfeed costs across time for a rank-and-file<br>9 Iowa producer.<br><br>10 <b>Q.</b> And do you know -- do you know<br>11 what the percentage of costs for raising a<br>12 hog is attributable to feed?<br><br>13     A. No, no.<br><br>14 <b>Q.</b> Do you know whether that cost<br>15 includes labor?<br><br>16     A. The sentence above suggests that<br>17 it is, and I would have to -- it's just been<br>18 too long since I went back through this. But<br>19 it says here that the average cost of<br>20 producing a 270-pound finished pig. And so I<br>21 think labor could enter in as the nonfeed<br>22 cost, but I would just want to go back and<br>23 check that out.<br><br>24 <b>Q.</b> Do you know whether Iowa State<br>25 makes any assumptions regarding sow | Page 286<br><br>1 subtract what the actual price was.<br>2         And it's that difference between<br>3 the predicted conditional on all of the<br>4 attributes and all of the parameters in the<br>5 model minus the actual. So I am not just<br>6 moving everything up by -- bu the conduct<br>7 parameter.<br><br>8 <b>Q.</b> So you -- you do have a<br>9 calculation of a predicted competitive price,<br>10 right?<br><br>11     A. For each transaction, I can<br>12 predict what the price would have been in the<br>13 but-for world given the parameters that I've<br>14 estimated in the model and given all of the<br>15 right-hand side variables of that particular<br>16 transaction.<br><br>17 <b>Q.</b> Is it always the same percentage<br>18 across transactions?<br><br>19     A. No. You mean, percentage<br>20 inflation? No. In fact, you can tell by the<br>21 99-point-something percentage, there's going<br>22 to be some transactions that appear to have<br>23 escaped injury. So if what you were saying<br>24 were true, and everything just automatically<br>25 moves by the same percentage, my test would  |

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| Page 289  | Page 291   |
| <p>1 present a hundred percent impact, and it does<br/>2 not.</p> <p>3     <b>Q. Is it true that the percent<br/>4 difference between the predicted price and<br/>5 your predicted competitive price is always<br/>6 12.8 percent?</b></p> <p>7     A. Well, I don't -- I don't perform<br/>8 that. I take the predicted price in the<br/>9 but-for world, which I would call the -- is<br/>10 the competitive price, and I compare it to<br/>11 the actual price. And that difference is not<br/>12 always 12.4 percent.</p> <p>13         On average, it's 12.4 percent, but<br/>14 it's not always 12.4 percent. And, in fact,<br/>15 just to repeat this point, sometimes the<br/>16 prediction comes in above the actual price in<br/>17 which that transaction by this test would<br/>18 appear to have escaped injury, and that<br/>19 happens in fewer than, you know, 1 percent of<br/>20 the transactions, but it does happen.</p> <p>21     <b>Q. I'm interested in -- I mean, you<br/>22 are aware that defendants produced data on a<br/>23 wide variety of pork products in this case.<br/>24 Some you even included in your analysis, and<br/>25 some you didn't, right?</b></p> | <p>1 aggregate damages associated with the class<br/>2 product. So if I were to include products in<br/>3 there that were not in the class, I would be<br/>4 overstating damages.</p> <p>5     <b>Q. In your pass-through analysis --<br/>6 and just for point of reference, I could<br/>7 direct you to Paragraph 181.</b></p> <p>8     A. Give me one second.</p> <p>9     <b>Q. Yep.</b></p> <p>10    A. Okay.</p> <p>11    <b>Q. Did you account for the -- for<br/>12 seasonality?</b></p> <p>13    A. Well, I know I accounted for<br/>14 seasonality in the -- in the overcharge<br/>15 regression to directs, but let me see if I<br/>16 got the control -- the capture seasonality in<br/>17 the pass-through.</p> <p>18         So I'm not seeing it here. My<br/>19 recollection is that we have already<br/>20 accounted for seasonality in Stage 1, which<br/>21 was to get to the overcharge to the directs.<br/>22 But we -- I don't think we account for<br/>23 seasonality in the pass-through regressions.<br/>24 That would be something that would be fairly<br/>25 trivial to do, and would also be common to</p> |

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| Page 290  | Page 292  |
| <p>1     A. Right. I eliminated anything that<br/>2 did not meet the class definition before<br/>3 running the test.</p> <p>4     <b>Q. And how did you come up with that<br/>5 class definition?</b></p> <p>6     A. It was given to me by counsel.</p> <p>7     <b>Q. So do you have any economic<br/>8 analysis to determine what was -- what<br/>9 products should be in or out of the class<br/>10 products?</b></p> <p>11    A. I'm not -- no one asked me what<br/>12 should be in or out of the class. That's up<br/>13 to the plaintiffs. What I -- I do an<br/>14 analysis of what should be in or out of<br/>15 product market. And in my opinion, the<br/>16 product market is larger than the class<br/>17 products, but you would have to ask counsel<br/>18 as to why they eliminated certain products<br/>19 from the class. That was not my decision.</p> <p>20    <b>Q. But in any case, it was your<br/>21 intention to limit your analysis to the<br/>22 products at issue in the class?</b></p> <p>23    A. I mean, I have to. I understand<br/>24 that's my instructions. My assignment is to<br/>25 estimate -- to show impact and to estimate</p> | <p>1 the class.</p> <p>2     <b>Q. Do you account for the cut or type<br/>3 of pork?</b></p> <p>4     A. We are accounting for -- and to<br/>5 the extent we are matching up the wholesale<br/>6 and the retail price of the same cut, that<br/>7 is, we are not mixing apples with oranges.<br/>8 You know, we are taking the price paid by the<br/>9 distributor, for example, and comparing it to<br/>10 the price -- let's see how we do this -- paid<br/>11 for the same cut, that is, what the<br/>12 distributor paid for and sold the same cut,<br/>13 right.</p> <p>14         So in that sense, we are<br/>15 controlling for the cut. We are not mixing<br/>16 apples and oranges. But if you're asking do<br/>17 we allow for a different pass-through by cut,<br/>18 I think the answer is no.</p> <p>19     <b>Q. And does your price measure price<br/>20 per pound or price per unit?</b></p> <p>21    A. I think it's units, but it's<br/>22 something I want to go back and check. I<br/>23 think we are doing it in units.</p> <p>24     <b>Q. Do you have an answer, or are you<br/>25 still looking?</b></p> |

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| 1 A. Oh. Sorry. I was done.<br><b>2 Q. I was thinking you were confirming</b><br><b>3 whether you --</b><br><b>4 A. No. As I'm thinking about it, I</b><br>5 don't think that it would affect -- that it<br>6 would have any effect on the pass-through<br>7 rates as long as we are doing apples to<br>8 apples. So you'd get the same pass-through<br>9 rate if you were doing -- you know, it's a<br>10 cut versus a cut.<br><b>11 A. And I can go during a break and</b><br>12 check if it's units or pounds, but I don't<br>13 see why that would make a difference.<br><b>14 Q. Well, if it's price per unit, the</b><br><b>15 products -- pork products can come in</b><br><b>16 different size packages, right?</b><br><b>17 A. Right. And so, you know, I know</b><br>18 that one of the challenges here was making<br>19 sure that we got comparable units on the buy<br>20 side and on the sell side for given a direct<br>21 purchaser. And we think that when you see<br>22 very skewed ratios of prices of cost that<br>23 would suggest that you have a mismatch on the<br>24 unit.<br><b>25 So I'm fairly confident -- I can</b>          | Page 293<br><b>1 pork?</b><br><b>2 A. Sitting here, I don't think so,</b><br>3 but that's something I can check as to what<br>4 controls, if any, were -- were included on<br>5 the right-hand side of these regressions. I<br>6 just performed these too long ago, but I<br>7 can't tell you which -- which controls are<br>8 included right now.<br><b>9 Q. And how many pass-through rates</b><br><b>10 did you estimate for each intermediary</b><br><b>11 seller?</b><br><b>12 A. One.</b><br>13 So when you say "intermediary<br>14 seller," you can look at Table 21. I've got<br>15 a pass-through rate for 7-Eleven, Aldi,<br>16 Amazon Fresh, and it goes down, and then I do<br>17 the same thing for the distributors.<br><b>18 Q. So did you allow the pass-through</b><br><b>19 rate to vary over time?</b><br><b>20 A. No. I just estimated one</b><br>21 pass-through rate across the data set.<br><b>22 Q. Do you allow the pass-through rate</b><br><b>23 to vary by cut or by defendant?</b><br><b>24 A. Still no. I mean, I think I told</b><br>25 you that I didn't do it by defendant earlier.  |
| Page 294<br><b>1 go back and check with the researcher -- that</b><br>2 we did do this in units.<br><b>3 Q. Does brand matter to the</b><br><b>4 pass-through analysis?</b><br><b>5 A. Brand of the retailer?</b><br><b>6 Q. Of the product being sold.</b><br><b>7 A. No, I don't think it would. These</b><br>8 are largely homogenous. You could -- if you<br>9 were so inclined, you could estimate separate<br>10 pass-through rates by -- you're saying for --<br>11 based on the source of the product, or you<br>12 could -- you could control for the source.<br>13 But that's not, you know, what we did.<br><b>14 We were looking at pass-through</b><br>15 from the perspective of the -- of the direct<br>16 purchaser.<br><b>17 Q. For example, did you indicate or</b><br><b>18 examine the possibility of differential</b><br><b>19 pass-through rates for branded versus</b><br><b>20 private-label products?</b><br><b>21 A. Oh, for a given retailer, we did</b><br>22 not.<br><b>23 Q. Did you account for any product</b><br><b>24 characteristics other than -- well,</b><br><b>25 seasonality we mentioned and the cut/type of</b> | Page 294<br><b>1 And by cut, I think that's still no. Same</b><br>2 answer. I didn't do separate pass-through<br>3 rates by cut.<br><b>4 Q. Did you evaluate any products sold</b><br><b>5 by nondefendant packers?</b><br><b>6 A. Let's see. Are you asking in my</b><br>7 pass-through analysis in particular or just<br>8 in general?<br><b>9 Q. Yes, yes. Sorry. In your</b><br><b>10 pass-through analysis.</b><br><b>11 A. I don't think so because we were</b><br>12 matching with defendants' data. But that's<br>13 something that I could -- you know, I could<br>14 run to ground. I think it was just for the<br>15 pass-through rate that could be matched with<br>16 defendants' data.<br><b>17 Q. Did you study whether retailers</b><br><b>18 could -- retailers' pass-through or cost</b><br><b>19 changes when they're running a promotion?</b><br><b>20 A. I allowed for -- I allowed for</b><br>21 promotions to be in the data, yes.<br><b>22 Q. Or whether retailers' pass-through</b><br><b>23 cost charges for all -- all brands?</b><br><b>24 A. Well, I don't provide separate</b><br>25 pass-throughs for these retail stores by |

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| Page 297   | Page 299  |
| <p>1 brands. I've got one pass-through for the<br/>2 retail.</p> <p>3 Q. So that same answer would hold<br/>4 true for changes -- or differences at<br/>5 different stores or regions or distribution<br/>6 centers or that kind of thing?</p> <p>7 A. I mean, I think it's fair that<br/>8 right now in Tables 21 and 22, that's just<br/>9 one for the -- for the direct purchaser.</p> <p>10 Q. And it's your -- in terms of the<br/>11 level of granularity, the model focuses on<br/>12 intermediary, monthly level and at a product<br/>13 level, right?</p> <p>14 A. Correct.</p> <p>15 MR. COLEMAN: Let's take a quick<br/>16 break here. I'm not even sure how<br/>17 long we have been going.</p> <p>18 THE VIDEOGRAPHER: The time is<br/>19 4:43 p.m. We are off the record.</p> <p>20 (A brief recess was held from<br/>21 4:43 p.m. to 4:56 p.m.)</p> <p>22 THE VIDEOGRAPHER: The time is<br/>23 4:56 p.m. We are back on the record.</p> <p>24 BY MR. COLEMAN:</p> <p>25 Q. Dr. Singer, I understand you</p>   | <p>1 lined up on a per-unit basis.</p> <p>2 Q. So what was it that you were<br/>3 focused on to do that match -- the product<br/>4 match?</p> <p>5 A. Was I focused on?</p> <p>6 Q. Yeah. How did you -- what was the<br/>7 key criteria that matched products?</p> <p>8 A. We just wanted to make sure that<br/>9 we were talking about the same product that<br/>10 was being bought and sold because that's --<br/>11 you know, we wanted to trace what a cost<br/>12 increase would be to a direct into its price<br/>13 that it charged in retail.</p> <p>14 Q. Okay. Got it. Yeah, yeah, yeah.</p> <p>15 A. So many times, you had asked me if<br/>16 we did the match. The answer is that in many<br/>17 times, the third party, either distributor or<br/>18 retailer did the match for us. And other<br/>19 times, we had to do the match. But what --<br/>20 what invariably was taking place was matching<br/>21 along SKU.</p> <p>22 So the SKU would be the -- what<br/>23 would identify in the database, the<br/>24 particular cut that was purchased and turned<br/>25 around and resold by -- by the direct.</p> |
| Page 298   | Page 300  |
| <p>1 wanted to clarify some previous testimony.</p> <p>2 A. There's just two things where I<br/>3 think I either got tired or misstated it.<br/>4 Let me just clear it up.</p> <p>5 On Paragraph 181, I talk about the<br/>6 controls that went into the pass-through<br/>7 model, and you will see that I controlled for<br/>8 product category and by months, seasonality.<br/>9 So that's in Paragraph 181, and you had asked<br/>10 me earlier what controls went into the<br/>11 pass-through regression. I told you I didn't<br/>12 know. I just couldn't do it by memory.</p> <p>13 And the second thing that I wanted<br/>14 to clear up, is you asked me about how the<br/>15 matching was done, and the matching -- I said<br/>16 it was -- I thought it was per unit. I think<br/>17 it was both, per unit and per pound, and the<br/>18 reason why it happened this way is that in<br/>19 many occasions, we -- the direct purchaser<br/>20 did the matching for us, and it was typically<br/>21 matching on SKU, and so I think the best way<br/>22 to answer your prior question was not by<br/>23 pound or by unit, but instead by SKU, and<br/>24 that resulted in some matches being lined up<br/>25 on a per-pound basis and other matches being</p> | <p>1 Q. Okay. Anything else?</p> <p>2 A. That's it.</p> <p>3 Q. Turning back to Agri Stats. I<br/>4 believe your testimony is that Agri Stats was<br/>5 central to the conspiracy that you understood<br/>6 to have existed between 2009 and 2018, right?</p> <p>7 A. Central to the plaintiff's theory<br/>8 of harm or alleged period of the challenged<br/>9 conduct. That's correct.</p> <p>10 Q. In a -- in Paragraph 136 of your<br/>11 report, for example, you say that collection<br/>12 and the dissemination of competitively<br/>13 sensitive information is the day-to-day work<br/>14 of a cartel, right?</p> <p>15 A. Yes.</p> <p>16 Q. And you cite quite a bit of<br/>17 literature on cartel conduct. And I gather<br/>18 that participants in a cartel, one of the key<br/>19 things they need to do is monitor compliance<br/>20 with a cartel agreement; is that right?</p> <p>21 A. Correct.</p> <p>22 Q. And your -- your opinion is that<br/>23 Agri Stats was consistent with that<br/>24 monitoring mechanism that a cartel needs for<br/>25 stability over time, right?</p>                            |

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| 1 A. Correct.<br>2 Q. And one of the problems that<br>3 cartels have is the constant incentive for<br>4 individual members of the cartel to cheat on<br>5 the agreement, right?<br>6 A. Yes.<br>7 Q. And the monitoring mechanism<br>8 allows other participants in the cartel to<br>9 see the cheating and pursue enforcement,<br>10 right?<br>11 A. Correct.<br>12 Q. And so the key thing that<br>13 monitoring allows for a cartel is to give<br>14 participants visibility into what each<br>15 individual firm is doing, whether they're<br>16 complying with the cartel, and then setting<br>17 the stage for enforcement of the cartel<br>18 agreement, right?<br>19 A. Right.<br>20 Q. And to have that kind of -- to<br>21 function as that kind of monitoring<br>22 mechanism, the participants in the cartel<br>23 need to monitor the individual firm<br>24 activities of cartel members, right?<br>25 A. Correct.   | Page 301<br><br>1 BY MR. COLEMAN:<br>2 Q. Right. So that the reason<br>3 monitoring is helpful is keep cartel members<br>4 in line and make sure the agreement is<br>5 stable, right?<br>6 A. Yes.<br>7 Q. And is it your opinion that there<br>8 are -- that none of cartel members from the<br>9 2009 to 2018 period deviated from the cartel<br>10 agreement that is alleged to have existed?<br>11 A. No. That's not my opinion. I<br>12 just -- I think that would give us insight<br>13 into what the enforcement would look like,<br>14 and I'm just not aware of a particular<br>15 episode happening.<br>16 Q. How would we identify an example<br>17 of deviation from the purported cartel<br>18 agreement?<br>19 A. Well, I mean, I think the -- you<br>20 could -- I'm just -- you know, I'm giving you<br>21 a hypothetical, but you could see in a report<br>22 that one participant is coming in<br>23 consistently below each of its rivals. And<br>24 then another participant questioning why<br>25 they're going along, and then the punishment   |
| Page 302<br><br>1 Q. So one thing that I am not seeing<br>2 in the documents that you have cited is any<br>3 enforcement mechanism through Agri Stats or<br>4 otherwise.<br>5 What do you have in mind as an<br>6 example of the alleged pork cartel's efforts<br>7 to enforce the agreement that you think<br>8 existed?<br>9 MR. RISSMAN: Object to form.<br>10 A. So enforcement, of course, is only<br>11 needed when someone deviates, and so I'm<br>12 not -- I'm not aware of episodes on which<br>13 someone deviated and -- and undercut their<br>14 rival's prices. In fact, what we observed in<br>15 the record evidence is that Agri Stats was<br>16 alerting defendants of opportunities to<br>17 increase the price. And that was generally<br>18 followed from what I -- what I observed.<br>19 But I -- you know, one of the<br>20 prongs that we are trying to -- to evaluate<br>21 is not enforcement per se but monitoring, and<br>22 monitoring was -- was the prong that I looked<br>23 at, and I think that there is pretty good<br>24 evidence that monitoring, in fact, was made<br>25 possible by -- by Agri Stats. | Page 302<br><br>1 could take one of two forms.<br>2 It could be we kick you out of the<br>3 cartel, or we would retaliate by dropping our<br>4 own prices. That would be kind of evidence<br>5 of enforcement that we would look for.<br>6 Q. And that kind of evidence is<br>7 something that we don't have here, at least<br>8 not in your report, right?<br>9 A. It's not -- I do not think it's in<br>10 my report. The enforcement when someone<br>11 deviated, just sitting here, I can't -- I<br>12 can't think of episodes that I came across.<br>13 Q. And I also don't see any documents<br>14 cited in your report in which Agri Stats<br>15 appears to have any recognition that it's<br>16 facilitating a cartel?<br>17 MR. RISSMAN: Object to form.<br>18 A. I don't think I would agree with<br>19 that characterization. I think that<br>20 Agri Stats recognized that it was creating<br>21 profit making and price increases that<br>22 wouldn't have otherwise been available<br>23 without the information, and use that as part<br>24 of its marketing to induce outsiders to join<br>25 the club. |

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| 1 BY MR. COLEMAN:<br>2 Q. Are you aware of any documents in<br>3 the case in which Agri Stats refers to an<br>4 agreement among the defendants to coordinate<br>5 prices or output?<br>6 A. Well, you know, I imagine that<br>7 Agri Stats wouldn't do something that was so<br>8 blatant and obvious to send up, you know,<br>9 alarm bells like that. I -- I just came off<br>10 of a price-fixing case on capacitors. No one<br>11 ever wrote down, like, let's perpetuate the<br>12 price-fixing agreement. It's just things<br>13 they know not to do.<br>14 In that case, they swapped around<br>15 at these monthly meetings Excel spreadsheets<br>16 that everybody would fill out of their<br>17 current and future prices.<br>18 So I'm not sure that you're going<br>19 to find such explosive and incriminating<br>20 language in a communication because people<br>21 know from their antitrust counsel that they<br>22 couldn't be saying things like that.<br>23 Q. So Agri Stats did the,<br>24 quote/unquote, day-to-day work of a cartel<br>25 for nine years in the period, and yet you're                                    | Page 305<br>1 then boost their price. Is that how that<br>2 operates?<br>3 A. The average is important, but of<br>4 course they were getting a lot of more than<br>5 the average here. They were getting<br>6 precisely where they sat on the distribution,<br>7 and so knowing that the granular level down<br>8 to the plant level and knowing where you were<br>9 on that distribution would give a participant<br>10 much more confidence in -- in raising prices<br>11 than if they only knew where they were with<br>12 respect to the average.<br>13 Q. I want to make sure I understand.<br>14 By "distribution," do you mean their ranking<br>15 in the Agri Stats report on --<br>16 A. Correct.<br>17 Q. So in your mind, the key things<br>18 the Agri Stats report provided was, first,<br>19 you get an average price by various products,<br>20 and then you get the defendants -- each<br>21 defendants knows its position with respect to<br>22 not only the average price but its overall<br>23 kind of ranking in the industry; is that<br>24 right?<br>25 A. Not just in the industry. I mean,   |
| Page 306<br>1 not aware of any instance in which it was<br>2 referring to an agreement among defendants?<br>3 MR. RISSMAN: Object to form.<br>4 Mischaracterizes his testimony.<br>5 A. Yeah. As an economist, you know,<br>6 I -- I'm not looking for, you know, an<br>7 agreement per se. I'm looking for conduct<br>8 that would facilitate collusive outcomes.<br>9 I'm looking at this through the lens of an<br>10 economist. The economist doesn't use the<br>11 word "agreement" when we're assessing<br>12 anticompetitive effects.<br>13 I want to know could -- could the<br>14 price hikes that were made possible through<br>15 the information-sharing regime, could those<br>16 have been achieved absent the information<br>17 sharing, and I think it would have been very,<br>18 very hard to do that, and that's why I think<br>19 that the information sharing effectuated<br>20 anticompetitive effects.<br>21 BY MR. COLEMAN:<br>22 Q. And one of your opinions is that<br>23 even average prices can have the effect of<br>24 pulling up prices over time as lower priced<br>25 members of the cartel see the average and | Page 306<br>Page 308<br>1 ranking down to very, very granular product<br>2 levels. Right? The Agri Stats reports<br>3 aren't just giving, you know, industry-level<br>4 price.<br>5 They are giving things down to the<br>6 cut and done to the plant, and so, you know,<br>7 I would submit that if someone wants to come<br>8 in below average but he finds out that he's<br>9 at the very bottom, and he can move up, you<br>10 know, that's a great opportunity to take a<br>11 price increase that may not be available<br>12 absent the information-sharing exchange.<br>13 Q. USDA publishes reports showing the<br>14 average price by primal in -- on an ongoing<br>15 realtime basis in the marketplace, right?<br>16 A. Well, it's at an aggregated level,<br>17 so my understanding is that they're not<br>18 breaking it out by processor, and they are<br>19 not breaking it out by plant. And when you<br>20 say "realtime," I'm sure it comes with a lag,<br>21 and -- and I -- just leave it at that.<br>22 Q. Do you know whether USDA prices<br>23 are more current than Agri Stats' prices that<br>24 are distributed to the defendants?<br>25 A. I don't know. I don't know for a |

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| Page 309   | Page 311  |
| <p>1 fact which one is more -- more current.</p> <p>2 Q. But in any case, the in terms of</p> <p>3 monitoring and enforcement, the ability to</p> <p>4 de-anonymize the data, identify who is who is</p> <p>5 important to the role that Agri Stats played</p> <p>6 in the purported cartel, right?</p> <p>7 A. Yes, and would not be available if</p> <p>8 all you had, say, was the USDA aggregated</p> <p>9 data. You wouldn't be able to punish, for</p> <p>10 example, or identify who was cheating on the</p> <p>11 cartel.</p> <p>12 Q. Right. And -- yeah. And the</p> <p>13 difference between Agri Stats and USDA, among</p> <p>14 others, one thing is you have the opinion</p> <p>15 that defendants were able to de-anonymize the</p> <p>16 participants in Agri Stats' reports, right?</p> <p>17 A. Yes.</p> <p>18 Q. Did you make any effort to</p> <p>19 de-anonymize any of the reports to identify</p> <p>20 who was who in any given report?</p> <p>21 A. No. I don't think that I, as a</p> <p>22 third party, would have that capability, but</p> <p>23 I was convinced that the participants could</p> <p>24 and, in fact, asked Agri Stats for assistance</p> <p>25 when they couldn't.</p> | <p>1 A. I would have to go into my</p> <p>2 de-anonymization section and see if there</p> <p>3 were attempts, successful or unsuccessful, by</p> <p>4 Hormel. But sitting here, at this late hour,</p> <p>5 I can't tell you if Hormel was in that</p> <p>6 section of the report.</p> <p>7 Q. Do you have any effort by Seaboard</p> <p>8 to de-anonymize Agri Stats reports?</p> <p>9 A. I mean, it's the same answer. I</p> <p>10 would have to go into that section of my</p> <p>11 report.</p> <p>12 Q. Did you -- you know, given the</p> <p>13 importance of de-anonymizing to your theory</p> <p>14 of how Agri Stats functioned, did you make</p> <p>15 any effort to check whether all defendants</p> <p>16 attempted to de-anonymize Agri Stats'</p> <p>17 reports?</p> <p>18 A. I think I made some effort in that</p> <p>19 direction. I mean, I put forward the</p> <p>20 evidence that I thought was most consistent</p> <p>21 with the claim. Whether or not I was able to</p> <p>22 show it for all defendants is another</p> <p>23 question.</p> <p>24 I don't know if I did. But that</p> <p>25 was certainly -- you know, we sought to get</p>  |
| <p>Page 310</p> <p>1 So I feel like that is sufficient.</p> <p>2 Whether I could do it as an outsider just by</p> <p>3 looking at a report, I think is irrelevant.</p> <p>4 It's whether or not the participants could,</p> <p>5 and I think I've shown a lot of evidence they</p> <p>6 could.</p> <p>7 Q. Any understanding as to the</p> <p>8 mechanism of how the purported de-anonymizing</p> <p>9 worked?</p> <p>10 MR. RISSMAN: Objection.</p> <p>11 Foundation.</p> <p>12 A. I described the mechanism, but I</p> <p>13 think that Agri Stats would provide a list of</p> <p>14 the participants at the top and would give</p> <p>15 details about the plant that tipped off the</p> <p>16 other participants as to whose plant it was</p> <p>17 and where it was.</p> <p>18 In any event, they were able to</p> <p>19 figure it out, and they boasted about being</p> <p>20 able to figure it out. I will leave it at</p> <p>21 that.</p> <p>22 BY MR. COLEMAN:</p> <p>23 Q. Any instance that you're aware of</p> <p>24 where Hormel attempted to de-anonymize an</p> <p>25 Agri Stats report?</p>  | <p>Page 312</p> <p>1 as much data on that question as we could.</p> <p>2 Q. Do you have any information as to</p> <p>3 whether Clemens ever attempted to</p> <p>4 de-anonymize an Agri Stats report?</p> <p>5 A. It would be the same answer; that</p> <p>6 I would send you to that section of the</p> <p>7 report to see if Clemens was there. I would</p> <p>8 have to say that it would be surprising that</p> <p>9 some could and some couldn't.</p> <p>10 I think it would be more of an all</p> <p>11 or nothing, and I also think that it's part</p> <p>12 of the marketing to ensnare, you know, future</p> <p>13 processors into the ring. You would -- it</p> <p>14 would be weird for Agri Stats to deny that</p> <p>15 sort of benefit for some members but not</p> <p>16 others.</p> <p>17 Q. Yeah. And why would that be</p> <p>18 surprising if there were some -- some members</p> <p>19 of Agri Stats or subscribers of Agri Stats</p> <p>20 that were not able or didn't de-anonymize?</p> <p>21 A. Because I think that's the</p> <p>22 fundamental value added that the Agri Stats</p> <p>23 report is bringing. It's allowing you to</p> <p>24 find price-making opportunities, price</p> <p>25 increases that you wouldn't otherwise be able</p> |

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| <p style="text-align: right;">Page 313</p> <p>1 to find, and the firms needed confidence and<br/>2 knowing, you know, who was where and where<br/>3 they ranked.<br/>4 And it just seems like you would<br/>5 cut a lot of the value to a prospective<br/>6 member if you denied them that -- that<br/>7 luxury.</p> <p><b>8 Q. And I assume that part of that<br/>9 role that de-anonymizing would play would be<br/>10 important for the de-anonymizing to be --<br/>11 well, as you described it, the participants<br/>12 would need some confidence in the accuracy of<br/>13 what they -- what they were doing and what<br/>14 they were seeing, right?</b></p> <p>15 A. I think that's fair. I think that<br/>16 they have to -- they have to believe what<br/>17 they're looking at is real data as opposed to<br/>18 made-up data.</p> <p><b>19 Q. Did you see any documents in which<br/>20 Agri Stats was trying to ensure that the<br/>21 participants could de-anonymize their<br/>22 reports?</b></p> <p>23 A. I recall efforts by certain<br/>24 defendants complaining to Agri Stats that<br/>25 they weren't able to do it as easily as they</p> | <p style="text-align: right;">Page 315</p> <p>1 doesn't have an opinion that's he<br/>2 offering in this case.<br/>3 A. Yeah. I mean, I can tell you when<br/>4 the challenged conduct came into existence<br/>5 for the complaint, which is in 2009, when<br/>6 Agri Stats started producing these specific<br/>7 reports.<br/>8 And then I think you had a<br/>9 two-part question for me. I can't remember<br/>10 what the other --<br/>11 BY MR. COLEMAN:<br/><b>12 Q. Yeah. I'm actually not interested<br/>13 in your opinion as much as just what evidence<br/>14 you have seen or reviewed, included in your<br/>15 report that -- of the formative meeting of<br/>16 the cartel members to engage in,<br/>17 quote/unquote, challenged conduct?</b><br/>18 MR. RISSMAN: Object to form.<br/>19 A. I think I detailed some industry<br/>20 meetings or association meetings that would<br/>21 have allowed these participants to interact<br/>22 in person, and I've also, I think, documented<br/>23 direct communications. I will leave it at<br/>24 that.<br/>25</p>   |
| <p style="text-align: right;">Page 314</p> <p>1 should and asking for further information.<br/><b>2 Q. Yeah. And how did Agri Stats<br/>3 respond from what you can recollect?</b><br/>4 A. I don't know if I -- I don't know<br/>5 if I -- in each of those occasions, I don't<br/>6 know if I showed what Agri Stats response<br/>7 was. I only showed the overtire by the<br/>8 member.<br/><b>9 Q. But it would be your expectation,<br/>10 given the role that Agri Stats was playing,<br/>11 that it would facilitate de-anonymizing, if<br/>12 requested by the members; is that right?</b><br/>13 A. I think that's fair.<br/>14 MR. RISSMAN: Form.<br/>15 BY MR. COLEMAN:<br/><b>16 Q. Are you aware of any evidence of a<br/>17 formative meeting for what we'll call the<br/>18 Agri Stats pork cartel?</b><br/>19 A. A formative meeting?<br/><b>20 Q. Right. When did this cartel come<br/>21 into existence?</b><br/>22 MR. RISSMAN: Objection. It<br/>23 calls for a legal conclusion, and I<br/>24 will instruct the witness to not<br/>25 answer and to the extent that he</p>  | <p style="text-align: right;">Page 316</p> <p>1 BY MR. COLEMAN:<br/><b>2 Q. So there are mediums in which<br/>3 they -- some of the defendants were --<br/>4 attended, so they had an opportunity to talk<br/>5 to one another. That's your testimony?</b><br/>6 A. Correct.<br/><b>7 Q. Did you see any evidence that they<br/>8 actually did and discussed an agreement to<br/>9 engage in the challenged conduct?</b><br/>10 A. I don't think I'm privy to what<br/>11 was discussed at those -- at those meetings.<br/><b>12 Q. Do you know whether there was any<br/>13 indication of what the specific agreement was<br/>14 as to whether there was an agreement to cut<br/>15 pork supply by some amount or -- what were<br/>16 the terms of the agreement, to the best that<br/>17 you understand it?</b><br/>18 MR. RISSMAN: Objection. Calls<br/>19 for a legal conclusion and lacks<br/>20 foundation.<br/>21 A. I think you might be taking the<br/>22 word "agreement" literally as if they drew up<br/>23 written documents, and these are the<br/>24 objections of the cartel, right.<br/>25 That's not what's in my analysis.</p> |

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| <p style="text-align: right;">Page 317</p> <p>1 What I'm trying to figure out is whether the<br/>     2 conduct using qualitative evidence according<br/>     3 to the economic criteria. My quantitative<br/>     4 evidence is consistent with the existence of<br/>     5 an agreement, but in the abstract, an<br/>     6 agreement that -- to raise prices and to<br/>     7 reduce domestic output.</p> <p>8 BY MR. COLEMAN:</p> <p>9     <b>Q. So you have an opinion that</b><br/>     10 <b>Agri Stats was used -- Agri Stats reports was</b><br/>     11 <b>used to raise prices, right?</b></p> <p>12     A. Yes.</p> <p>13     <b>Q. And do you have any opinion as to</b><br/>     14 <b>whether there was any kind of specific</b><br/>     15 <b>agreement on prices or not to compete based</b><br/>     16 <b>on a specific price in Agri Stats or anything</b><br/>     17 <b>along those lines?</b></p> <p>18         Just wanting to understand how you<br/>     19 think this mechanism worked?</p> <p>20         MR. RISSMAN: I'm going to<br/>     21 object to form.</p> <p>22         A. So the mechanism work, as I, you<br/>     23 know, spelled it out in my report, is that I<br/>     24 think -- I think it's best understood as<br/>     25 information exchange, where the information</p> | <p style="text-align: right;">Page 319</p> <p>1 undercut you.</p> <p>2     <b>Q. Or a -- I think what you're</b><br/>     3 <b>intending to say is an agreement to exchange</b><br/>     4 <b>pricing information absent the agreement</b><br/>     5 <b>would be dangerous; is that right?</b></p> <p>6     A. Well, I mean, something more<br/>     7 basic. That sharing of current prices or<br/>     8 capacity with rivals in a granular level can<br/>     9 facilitate anticompetitive outcomes. I think<br/>     10 that's a pretty basic proposition that most<br/>     11 economists subscribe to.</p> <p>12     <b>Q. And do you have -- so I understand</b><br/>     13 <b>that you engage in the economic analysis to</b><br/>     14 <b>kind of quantify the effect of the exchange</b><br/>     15 <b>of information on prices. I'm interested in</b><br/>     16 <b>what understanding you have reached based on</b><br/>     17 <b>your review of the record as to how that</b><br/>     18 <b>mechanism actually worked in practice.</b></p> <p>19         Can you provide any more detail<br/>     20 <b>how Agri Stats reports were used by</b><br/>     21 <b>individual defendants to coordinate on</b><br/>     22 <b>prices?</b></p> <p>23         MR. RISSMAN: I'm going to<br/>     24 object to instruct the witness to only<br/>     25 answer as to opinions that he's</p> |
| <p style="text-align: right;">Page 318</p> <p>1 that was exchanged was competitively<br/>     2 sensitive. And that facilitated coordinated<br/>     3 decision making with respect to prices and<br/>     4 output.</p> <p>5 BY MR. COLEMAN:</p> <p>6     <b>Q. Well, you know, defendant could</b><br/>     7 <b>get the information -- I think you even</b><br/>     8 <b>mentioned this, that perhaps in collusion,</b><br/>     9 <b>defendants wouldn't want to exchange</b><br/>     10 <b>information because they might undercut the</b><br/>     11 <b>prices with knowledge of a defendant's</b><br/>     12 <b>prices, right?</b></p> <p>13     A. Right. Absent -- absent collusion<br/>     14 that if I just volunteered to you that I'm<br/>     15 taking my plant capacity down, and we didn't<br/>     16 have a, quote/unquote, agreement in place,<br/>     17 then you could undercut me by increasing<br/>     18 output or stealing my clients or my<br/>     19 customers.</p> <p>20     <b>Q. And the same thing on price,</b><br/>     21 <b>right?</b></p> <p>22     A. Correct. So, yeah, committing to<br/>     23 raise prices in the absence of an agreement<br/>     24 is dangerous to the extent that it would<br/>     25 allow a rival who wasn't on the same page to</p>               | <p style="text-align: right;">Page 320</p> <p>1 offered in this case.</p> <p>2     A. The opinion that I offered in the<br/>     3 case -- the analysis I offered shows how<br/>     4 defendants were able to exploit the<br/>     5 competitively sensitive information that I<br/>     6 have provided to identify price increases<br/>     7 that were safe to take.</p> <p>8         And my opinion is that in the<br/>     9 absence of that sharing mechanism, it would<br/>     10 have been much harder to exploit and to take<br/>     11 those -- even learn of those problem max --<br/>     12 maximizing profiting opportunities.</p> <p>13 BY MR. COLEMAN:</p> <p>14     <b>Q. And did you -- and the -- the</b><br/>     15 <b>Agri Stats sales reports would be the -- in</b><br/>     16 <b>your mind, the key mechanism for that kind of</b><br/>     17 <b>price coordination, right?</b></p> <p>18         MR. RISSMAN: Object to form.</p> <p>19         A. I think they were key, but I think<br/>     20 I go through and talk about how each of the<br/>     21 reports could have facilitated coordinated<br/>     22 pricing decisions and output decisions.</p> <p>23 BY MR. COLEMAN:</p> <p>24     <b>Q. Are you aware of any individual</b><br/>     25 <b>transaction that you can point to where a</b></p>   |

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| 1 defendant used an Agri Stats report as the<br>2 driver for the primary rationale for price<br>3 increase?<br>4 MR. RISSMAN: Object to form.<br>5 A. I don't know if we could go point<br>6 to a transaction, but we can definitely, and<br>7 we do, review episodes in which Agri Stats<br>8 identified a price-taking opportunity for a<br>9 participant, and the participant seizes and<br>10 exploits that information, and it's<br>11 conceivable we could go find out the affected<br>12 transactions.<br>13 But as you know that my -- my<br>14 price regression doesn't look at the effects<br>15 on any particular transaction. It's looking<br>16 at the effect during the totality of the<br>17 conduct period, you know, in relation to this<br>18 clean benchmark period beforehand.<br>19 BY MR. COLEMAN:<br>20 Q. Yeah. So when I reviewed the<br>21 evidence that you cited, I see a lot of<br>22 Agri Stats presenting sales reports that<br>23 identify, quote/unquote, pricing<br>24 opportunities.<br>25 So I see that, and I understand                         | Page 321<br>1 were identified by Agri Stats for defendant<br>2 were seized upon.<br>3 I mean, that was the whole purpose<br>4 of subscribing to the -- the report.<br>5 Q. So certain defendants didn't<br>6 subscribe to Agri Stats sales reports for<br>7 long stretches of the conspiracy period,<br>8 right?<br>9 A. I had a table that, I think, shows<br>10 little check marks for which report who took<br>11 and of when, but I'm going to admit again<br>12 that I don't have it memorized.<br>13 Q. Why would it make sense for a<br>14 defendant not to subscribe to the Agri Stats<br>15 report if it's a member of the supposed<br>16 cartel?<br>17 MR. RISSMAN: Object to form.<br>18 Calls for speculation.<br>19 A. Well, I would want to look at the<br>20 series, but it's conceivable that you would<br>21 have someone who just came late to the party.<br>22 They just came -- there's a few years during<br>23 the conduct period they weren't yet in, and<br>24 eventually show up subscribing.<br>25                      |
| Page 322<br>1 it's presented in your reports, and I see<br>2 some instances of executives that get the<br>3 reports and say, oh, yeah, we are not doing<br>4 well. We got to do better on our pricing,<br>5 you know, presumably raise the pricing.<br>6 What I don't see is any instance<br>7 of an individual defendant making a pricing<br>8 decision actually based on that information.<br>9 Right?<br>10 MR. RISSMAN: Object -- object<br>11 to form and just the narrative and<br>12 your characterization of the evidence.<br>13 BY MR. COLEMAN:<br>14 Q. Yeah. You can correct me if I'm<br>15 wrong, Dr. Singer.<br>16 Where's the evidence of a<br>17 defendant taking the Agri Stats pricing<br>18 information and adjusting their bid or using<br>19 it in a bid or raising their price list or<br>20 anything like that?<br>21 A. Well, I think I have a section<br>22 that describes how defendants came to rely on<br>23 the Agri Stats report for decision making.<br>24 And I think that it's also fair to infer<br>25 that -- that price-taking opportunities that | Page 322<br>1 BY MR. COLEMAN:<br>2 Q. In your mind, would the<br>3 subscription of the Agri Stats sales report<br>4 be a key indicator of whether they were<br>5 participating in the cartel?<br>6 MR. RISSMAN: Objection. That<br>7 calls for a legal conclusion.<br>8 A. Well, you keep seizing on the<br>9 sales, and I will grant you, it was very<br>10 important. But I think that the other<br>11 reports were also helpful in facilitating<br>12 coordinated, you know, pricing or output<br>13 decisions.<br>14 I mean, the export report, for<br>15 example, would tell you whether your rivals<br>16 were abiding by an effort to move product out<br>17 of the domestic market so as to prop up<br>18 domestic prices.<br>19 If you saw someone's export ratio<br>20 plummet well below what the other firms were<br>21 doing, that would be an indication that they<br>22 weren't -- they weren't going along.<br>23 BY MR. COLEMAN:<br>24 Q. So if we want to know if a farm is<br>25 participating in the cartel, we would look at |

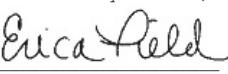
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| Page 325   | Page 327  |
| <p>1 subscription of sales report and the export<br/>2 report; is that right?</p> <p>3 MR. RISSMAN: Object to form.<br/>4 That calls for a legal conclusion.<br/>5 MR. COLEMAN: Actually not.<br/>6 BY MR. COLEMAN:<br/>7 Q. I'm interested in your economic<br/>8 opinion.</p> <p>9 MR. RISSMAN: Well,<br/>10 participation -- if you're going to<br/>11 quibble with me, participation in a<br/>12 conspiracy is a legal question.<br/>13 A. Yeah. So my criteria -- when you<br/>14 think about the economic criteria that I<br/>15 employ from the economic literature, you<br/>16 know, monitoring like inducements. I mean,<br/>17 these are -- these are elements that in<br/>18 indicia that economists have come up with in<br/>19 their study of cartels over time. These are<br/>20 characteristics that consistent with.<br/>21 And so I do -- I do highlight who<br/>22 was subscribing to which report and when, but<br/>23 I don't know if I would allow that table to<br/>24 dictate at least my inference as to when<br/>25 someone was participating, and, you know, I</p> | <p>1 to why someone was out and not in on a<br/>2 particular report in a particular year. I'm<br/>3 not offering an opinion on that.<br/>4 BY MR. COLEMAN:<br/>5 Q. If defendants are requested by a<br/>6 grocery retailer, for example, to submit bids<br/>7 to an RFP, do you have any opinion as to how<br/>8 the Agri Stats reports would help them win<br/>9 that business?</p> <p>10 MR. RISSMAN: Objection. Calls<br/>11 for speculation, and I will also,<br/>12 again, instruct the witness to the<br/>13 extent he has an opinion about that in<br/>14 this case, he can -- he can give it.<br/>15 A. Yeah. I think that -- implicit in<br/>16 your question is that -- is that the buyers<br/>17 have access to the Agri Stats reports, the<br/>18 same level of granularity as the defendants.<br/>19 I'm not sure that that's the case.<br/>20 BY MR. COLEMAN:<br/>21 Q. No. I actually -- yeah. We'll<br/>22 assume that the buyers don't have any access<br/>23 to the Agri Stats reports. So we've got the<br/>24 defendants who are, you know, pork packers.<br/>25 They're selling pork to a retailer or a</p> |
| <p>Page 326</p> <p>1 also just want to say that participating in<br/>2 an agreement is something that's outside of<br/>3 my domain again.<br/>4 I'm just merely looking at<br/>5 qualitative evidence that's consistent with<br/>6 the economic criteria of a cartel.<br/>7 BY MR. COLEMAN:<br/>8 Q. Yeah. That's what I'm -- I'm<br/>9 interested in is your assessment of the<br/>10 record evidence as an economist, and when<br/>11 you're looking at one or more firms that<br/>12 aren't subscribing to the Agri Stats reports,<br/>13 that would indicate to you as an economist<br/>14 that they don't appear to be taking<br/>15 advantages of the purported cartel, right?</p> <p>16 MR. RISSMAN: Objection. I will<br/>17 instruct the witness not to offer<br/>18 opinions he's not offering in this<br/>19 case.<br/>20 BY MR. COLEMAN:<br/>21 Q. You're not going to answer?<br/>22 MR. RISSMAN: He can answer if<br/>23 he has an opinion about that that he's<br/>24 offered in this case.<br/>25 A. I have not offered an opinion as</p>                                    | <p>Page 328</p> <p>1 wholesaler, and the wholesale is asking them,<br/>2 sharpen your pencil. We want your best<br/>3 prices, you know, for a specified product<br/>4 list.<br/>5 Do you ever see any indication<br/>6 that the packers were consulting the<br/>7 Agri Stats reports to figure out how to<br/>8 respond to that bid?</p> <p>9 MR. RISSMAN: Object to form.<br/>10 Incomplete hypothetical.<br/>11 A. Sitting here, I don't know if I<br/>12 put forward evidence of the use of Agri Stats<br/>13 to -- to inform a bid to an RFP.<br/>14 BY MR. COLEMAN:<br/>15 Q. Do you have any opinion or theory<br/>16 as to how Agri Stats would be useful for that<br/>17 scenario?<br/>18 A. I haven't formed an opinion on<br/>19 that yet, no.<br/>20 Q. Can we turn to Tab 61?<br/>21 A. Sure.<br/>22 Q. Tell me when you're there.<br/>23 A. I'm there.<br/>24 MR. COLEMAN: And, Jacob, if you<br/>25 want to pull it up, we are on the</p>   |

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| Page 329  | Page 331   |
| <p>1 first page of the document.</p> <p>2 BY MR. COLEMAN:</p> <p>3 Q. So what's been marked as</p> <p>4 Exhibit 61 is a Clemens document that you</p> <p>5 cite in Footnote 259 of your report. But I'm</p> <p>6 interested in -- the Clemens document applied</p> <p>7 an industry overview. It talks about</p> <p>8 production. That's the third header down.</p> <p>9 It mentions that expansion of pork production</p> <p>10 is already in the works. Farrowing</p> <p>11 intentions, as reported by USDA, for this</p> <p>12 fall and winter are up 4 percent. Higher</p> <p>13 farrowings this fall should be palpable in</p> <p>14 the form of increased pork production in the</p> <p>15 spring of 2015.</p> <p>16 Do you see that?</p> <p>17 MR. RISSMAN: Take your time to</p> <p>18 look at the document and the footnote</p> <p>19 that it is cited in. You said 259, I</p> <p>20 think.</p> <p>21 THE WITNESS: Just one second.</p> <p>22 MR. RISSMAN: Yeah. Footnote</p> <p>23 259.</p> <p>24 BY MR. COLEMAN:</p> <p>25 Q. Tell me when you're ready.</p> | <p>1 MR. RISSMAN: Objection.</p> <p>2 Foundation.</p> <p>3 A. That's their assessment. I think</p> <p>4 that's fine, yes.</p> <p>5 BY MR. COLEMAN:</p> <p>6 Q. And you recognize that Clemens had</p> <p>7 announced a new plant in 2014, right?</p> <p>8 A. You will have to take me to that.</p> <p>9 I know you mentioned that earlier today. But</p> <p>10 is that in this document?</p> <p>11 Q. Are you aware of that fact?</p> <p>12 A. I don't know if I was aware of it,</p> <p>13 but you have mentioned that today, so I could</p> <p>14 either take your word for it.</p> <p>15 Do you think this document</p> <p>16 establishes that?</p> <p>17 Q. I don't know if it does or</p> <p>18 doesn't, but I'm interested in what you're</p> <p>19 aware of.</p> <p>20 A. Yeah. I haven't done a study of</p> <p>21 which plants were created by year.</p> <p>22 Q. Paragraph 78 of your report refers</p> <p>23 to the Seaboard Triumph plans being announced</p> <p>24 for a new plant being announced in 2015,</p> <p>25 right?</p>  |
| Page 330  | Page 332   |
| <p>1 A. So I've read the three sub-bullets</p> <p>2 under production.</p> <p>3 Q. Yes. And the one I hadn't yet</p> <p>4 read into the record is the third one that</p> <p>5 said: Pork production expansion will</p> <p>6 continue into 2016, which will put downward</p> <p>7 pressure on prices. Right?</p> <p>8 A. Yes.</p> <p>9 Q. So at least in this period, which</p> <p>10 based on the dates referenced in the</p> <p>11 document, 2015 going into 2016, was the</p> <p>12 period of expanded pork production, right?</p> <p>13 MR. RISSMAN: Objection.</p> <p>14 Foundation. Assumes facts.</p> <p>15 A. Well, the document says pork</p> <p>16 production expansion will continue into 2016.</p> <p>17 So it suggests that at least for 2015, pork</p> <p>18 production was expanding.</p> <p>19 BY MR. COLEMAN:</p> <p>20 Q. And that's an internal Clemens</p> <p>21 document, right?</p> <p>22 A. Correct.</p> <p>23 Q. That's their assessment of what's</p> <p>24 happening in the marketplace in this -- in</p> <p>25 this period of time, right?</p> | <p>1 A. Let me get to 78.</p> <p>2 So, yes, there's a 2015 press</p> <p>3 release that I mentioned about -- about the</p> <p>4 cost of starting a new plant of 264 million</p> <p>5 as indicative of high-entry rigors.</p> <p>6 Q. Right. And that was --</p> <p>7 notwithstanding that cost, Seaboard and</p> <p>8 Triumph committed to it -- to pay that price</p> <p>9 in that time period, 2014 and 2015, right?</p> <p>10 MR. RISSMAN: Objection.</p> <p>11 Foundation.</p> <p>12 A. Yes. They -- they brought that</p> <p>13 plant online, and is also consistent with the</p> <p>14 conspiracy to suppress output. It's -- the</p> <p>15 theory of harm is not that the restraints</p> <p>16 were going to set capacity to zero. It's</p> <p>17 that the capacity would be less than it</p> <p>18 otherwise would be.</p> <p>19 So episodes of capacity increasing</p> <p>20 during the conduct period does not disprove</p> <p>21 the plants' theory of harm.</p> <p>22 BY MR. COLEMAN:</p> <p>23 Q. So investing hundreds of millions</p> <p>24 of dollars in a new pork packing plant is</p> <p>25 consistent with the conspiracy to restrict</p> |

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| Page 333   | Page 335  |
| <p>1 the supply of pork; that's your opinion?</p> <p>2 A. It's not inconsistent. I think</p> <p>3 I'd put it that way. But the mere fact that</p> <p>4 a plant comes online during the conduct</p> <p>5 period doesn't disprove the theory of harm.</p> <p>6 Q. In any case, is the period 2014,</p> <p>7 2015, which we have at least two defendants</p> <p>8 announcing new packing plants and in the</p> <p>9 Clemens document in Tab 61, we see it's also</p> <p>10 a period of expanded pork production and hog</p> <p>11 production, right?</p> <p>12 MR. RISSMAN: Object to form.</p> <p>13 A. I mean, that's what the</p> <p>14 document -- this Clemens document says, that</p> <p>15 pork production expansion will continue into</p> <p>16 2016. It is what the document says.</p> <p>17 BY MR. COLEMAN:</p> <p>18 Q. When you looked at the data of</p> <p>19 what happened to the supply of pork, did you</p> <p>20 observe significant increases in supply in</p> <p>21 the period from 2014 to 2018?</p> <p>22 A. I mean, it's possible I came</p> <p>23 across production data, but I wasn't trying</p> <p>24 to model production. I think that other</p> <p>25 experts may have modeled production as their</p> | <p>1 the statute of limitations, as I understand</p> <p>2 it. So there's not an economically</p> <p>3 significant phenomenon that would cause me to</p> <p>4 think that you would want to treat 2014</p> <p>5 special. It's just as far back as plaintiffs</p> <p>6 could go to recover damages.</p> <p>7 So the start date for the conduct</p> <p>8 period is 2009, and I wouldn't expect there</p> <p>9 to be differences from 2009 to '14 from, say,</p> <p>10 2014 to 2018. Once you control for all other</p> <p>11 things, it will explain pork prices at the</p> <p>12 time.</p> <p>13 Q. Well, we have new plant and</p> <p>14 expanded hog production and significant</p> <p>15 increases and overall pork production in that</p> <p>16 period of 2014 to 2018, right?</p> <p>17 A. Well, if you are right --</p> <p>18 MR. RISSMAN: Object to form.</p> <p>19 It assumes facts not in evidence.</p> <p>20 A. If you're right that capacity is</p> <p>21 increasing from '14 to '18, then that should</p> <p>22 put downward pressure on prices, and if</p> <p>23 that -- and if that occurred, then the</p> <p>24 conduct parameter would have the opposite</p> <p>25 sign of the sign that I observed, which was</p> |
| Page 334   | Page 336  |
| <p>1 dependant variable, their key lens through</p> <p>2 which the harm would have manifested itself.</p> <p>3 I'm looking at pricing.</p> <p>4 Q. And I think we've established</p> <p>5 this, but just to revisit, did you do any</p> <p>6 analysis to assess what happened to the price</p> <p>7 of class products specifically in that period</p> <p>8 of 2014 to 2018?</p> <p>9 A. What happened to class products</p> <p>10 between 2014 and '18?</p> <p>11 Q. Yeah, the price of those products.</p> <p>12 A. Sorry. Of which products?</p> <p>13 Q. The class products. Pork products</p> <p>14 that you have included -- defined as class</p> <p>15 products.</p> <p>16 A. So 2014 to 2018 is inside the</p> <p>17 conduct period. It's also inside the class</p> <p>18 period. So I absolutely analyzed the price</p> <p>19 of those products.</p> <p>20 Q. And I am interested in</p> <p>21 specifically whether you focused on the</p> <p>22 overcharge for those products in that period</p> <p>23 between 2014 and 2018?</p> <p>24 A. I didn't treat those differently.</p> <p>25 You know, the 2014 start date is limited by</p>  | <p>1 positive and statistically significant.</p> <p>2 So something doesn't add up in</p> <p>3 your story, and I think that looking at the</p> <p>4 capacity is perfectly reasonable, but I don't</p> <p>5 think that whatever episodes you're pointing</p> <p>6 to was enough to negate inflationary effect</p> <p>7 of the conduct on prices.</p> <p>8 BY MR. COLEMAN:</p> <p>9 Q. Well, it would -- one way you</p> <p>10 would know would be to isolate that period of</p> <p>11 2014 to 2018 and analyze whether there was an</p> <p>12 overcharge specifically in that period,</p> <p>13 right?</p> <p>14 A. No. I wouldn't do it that way. I</p> <p>15 think that you might be able to convince me</p> <p>16 to consider a measure of capacity as a</p> <p>17 further control variable, but I wouldn't want</p> <p>18 to go looking for arbitrary structural</p> <p>19 breaks, just applying the Chow test</p> <p>20 willy-nilly because economists know that you</p> <p>21 will -- you will get wrong inferences that</p> <p>22 way.</p> <p>23 And with the caveat, of course,</p> <p>24 that when you bring something like capacity</p> <p>25 in on the right-hand side of a reduced form</p>                           |

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| <p>1 price regression, you could be engendering<br/>2 endogeny, so you have to be careful about how<br/>3 that enters the model.</p> <p>4 Q. I'm interested not just in<br/>5 capacity, but that we know -- we have the<br/>6 fact of capacity -- we have increased pork<br/>7 production in that period, and I'm interested<br/>8 in whether you see any merit in analyzing<br/>9 that period of 2014 to 2018 --</p> <p>10 A. Not --</p> <p>11 Q. -- the total class period?</p> <p>12 A. No, no, not separately because we<br/>13 don't -- we don't believe that the conduct --<br/>14 the challenged conduct has changed during<br/>15 those period. Agri Stats is still putting<br/>16 out the same kind of information-sharing rig<br/>17 as it was in the prior years.</p> <p>18 So I'm gently pushing back on the<br/>19 notion of treating those years as distinct<br/>20 for the purposes of the economic model. I<br/>21 think that -- that if you thought there were<br/>22 significant shifts in the supply that my<br/>23 model wasn't accounting for, those are the<br/>24 types of variables you could bring it, but I<br/>25 would be very loathed to estimate separate</p> | <p>1 BY MR. COLEMAN:</p> <p>2 Q. What are the three mechanisms to<br/>3 reduce --</p> <p>4 (Simultaneous unreportable<br/>5 crosstalk.)</p> <p>6 A. It's a marginal effect. It's not<br/>7 a wipeout capacity.</p> <p>8 Q. One of the three levers of the<br/>9 purported cartel was reducing the harvest of<br/>10 hogs, right?</p> <p>11 A. Right.</p> <p>12 Q. And building a new plant and<br/>13 increasing the harvest of hogs is<br/>14 fundamentally at odds with that mechanism of<br/>15 the cartel, right?</p> <p>16 MR. RISSMAN: Objection. Asked<br/>17 and answered.</p> <p>18 A. I mean, when viewed in isolation,<br/>19 it's certainly not helpful, but the fact that<br/>20 there were some capacity -- some plants<br/>21 brought online during, you know, this huge<br/>22 period, 2009 to 2020 -- you know, the fact<br/>23 that you can point to a plant coming online<br/>24 doesn't -- doesn't lead me to believe that<br/>25 that is dispositive and therefore, their --</p>   |
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| <p>1 effects in those years.</p> <p>2 Q. We talked about, you know, the<br/>3 fact that cartels can fracture with cheating<br/>4 based on the incentives of individual firms,<br/>5 and why -- wouldn't you have expected to see<br/>6 with Clemens or Seaboard Triumph operating<br/>7 new plants, other members of the cartel<br/>8 expressing some angst that the cartel members<br/>9 are blowing open an agreement to restrict<br/>10 pork supply by significantly increasing<br/>11 capacity?</p> <p>12 MR. RISSMAN: Object to form.</p> <p>13 A. Well, I'm sure that competitors<br/>14 don't like to see rivals increasing capacity.<br/>15 All things equal, they consider that to be a<br/>16 bad thing. But I don't know if any of them<br/>17 are in a position to stop all capacity<br/>18 increases.</p> <p>19 What -- what is being alleged here<br/>20 is that there was a drawdown through various<br/>21 means, the three mechanisms that we talked<br/>22 about, in addition to just raising prices<br/>23 generally that reduced capacity relative to<br/>24 what it would have been in the absence of the<br/>25 challenged conduct.</p>                               | <p>1 you know, the plaintiff's theory of harm must<br/>2 be rejected. That would be an overreaction<br/>3 to that effect.</p> <p>4 Q. Yeah. That might be true. But I<br/>5 would expect to see other members of this<br/>6 cartel, if it existed, expressing<br/>7 consternation that the participants in the<br/>8 cartel are significantly increasing capacity<br/>9 in violation of how the cartel functioned<br/>10 over time, right?</p> <p>11 MR. RISSMAN: Object to form.</p> <p>12 And calls for speculation.</p> <p>13 A. You might expect to see that, and<br/>14 maybe -- maybe it's somewhere in the record<br/>15 evidence those -- those three reactions. I<br/>16 haven't studied the defendants' reactions to<br/>17 these episodes of new plant openings.</p> <p>18 MR. COLEMAN: Why don't we take<br/>19 a break. I think I may be close to<br/>20 done. I am probably close to done on<br/>21 the time anyway.</p> <p>22 MR. RISSMAN: Yeah, you got<br/>23 13 minutes.</p> <p>24 MR. COLEMAN: Oh, okay. So<br/>25 really close. So, yeah, I will take a</p> |

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| <p>1 break and see if there's any wrap-up.</p> <p>2 THE VIDEOGRAPHER: The time is</p> <p>3 5:48 p.m. We are going off the</p> <p>4 record.</p> <p>5 (A brief recess was held from 5:48</p> <p>6 p.m. to 5:56 p.m.)</p> <p>7 THE VIDEOGRAPHER: The time is</p> <p>8 5:56 p.m. We are back on the record.</p> <p>9 BY MR. COLEMAN:</p> <p>10 Q. This is our last question or</p> <p>11 couple of questions. I would like to know</p> <p>12 what you did to prepare for the deposition</p> <p>13 today.</p> <p>14 A. Right. So I met with my staff to</p> <p>15 review certain questions that I had. Met</p> <p>16 with counsel. And I went back and read my</p> <p>17 report.</p> <p>18 Q. And how long did you meet with</p> <p>19 staff --</p> <p>20 A. I don't know if I -- yeah.</p> <p>21 Q. -- for preparation of the</p> <p>22 deposition?</p> <p>23 A. I don't know if I have a good</p> <p>24 estimate of hours. You know, I would say</p> <p>25 hours. And sometimes it's just a phone call</p>   | <p>1 would like to do that now, that would be</p> <p>2 great.</p> <p>3 A. Yeah, that's great. It's just a</p> <p>4 handful, but as I was reading through it the</p> <p>5 last few days, I just spotted a few things</p> <p>6 that didn't make it into the errata, so I'll</p> <p>7 go through this very quick.</p> <p>8 Paragraph 112, I used the word</p> <p>9 "below" -- I should have used the word</p> <p>10 "below" instead of "above." It's when</p> <p>11 identifying pricing opportunities, and</p> <p>12 Smithfield was below the average, not above</p> <p>13 the average.</p> <p>14 Q. Okay.</p> <p>15 A. In Paragraph 114, I would like to</p> <p>16 amend a line about what the Clemens data --</p> <p>17 what can and cannot inform. Let me get to</p> <p>18 Paragraph 114.</p> <p>19 Sorry. Give me one second. It's</p> <p>20 in the regression section.</p> <p>21 Q. Is that Page 114?</p> <p>22 A. It was Page 114. I apologize.</p> <p>23 It's in the middle of the page. It is</p> <p>24 talking about what we can and cannot do with</p> <p>25 Clemens data.</p>   |
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| <p>1 for me to -- you know, to a case manager</p> <p>2 asking him a question.</p> <p>3 Q. How long did you meet with</p> <p>4 counsel?</p> <p>5 A. I think we had one session that</p> <p>6 was about an hour, and another session that</p> <p>7 was about two hours.</p> <p>8 Q. And how long did you spend</p> <p>9 reviewing your report in preparation for the</p> <p>10 deposition?</p> <p>11 A. I know -- I think it's easier to</p> <p>12 give it to you in days than hours, but I</p> <p>13 think that there were several days of</p> <p>14 reviewing the documents and the report. It's</p> <p>15 a long report.</p> <p>16 MR. COLEMAN: Okay. I have no</p> <p>17 further questions.</p> <p>18 MR. RISSMAN: Dr. Singer, I do</p> <p>19 just have one question for you.</p> <p>20 CROSS-EXAMINATION</p> <p>21 BY MR. RISSMAN:</p> <p>22 Q. I understand there are -- outside</p> <p>23 of the errata that you've already issued,</p> <p>24 there are a few additional errata that you</p> <p>25 wanted to put on the record. And if you</p> | <p>1 And the line that begins: This</p> <p>2 means the defendants' Clemens data cannot --</p> <p>3 and it should read: Directly inform the</p> <p>4 conduct parameter but will still contribute</p> <p>5 indirectly to informing the other parameters</p> <p>6 in the model with or without</p> <p>7 defendant-specific fixed effects.</p> <p>8 So the line as -- as it was</p> <p>9 written could create the impression that it's</p> <p>10 only informing these other parameters without</p> <p>11 defendant-specific fixed effects, and it</p> <p>12 turns out that the Clemens data, despite the</p> <p>13 fact it only shows up during the conduct</p> <p>14 period, is indirectly informing the conduct</p> <p>15 parameter via its influence on all the other</p> <p>16 parameters in the model, and that's true with</p> <p>17 or without fixed effects.</p> <p>18 And that's true as a theoretical</p> <p>19 matter, but also we've now run a model where</p> <p>20 you just take Clemens out using fixed</p> <p>21 effects -- defendant fixed effects, and the</p> <p>22 conduct parameter changes.</p> <p>23 So it's one way of saying that the</p> <p>24 defendant -- the Clemens data is informing,</p> <p>25 albeit indirectly, the conduct parameter</p> |

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| <p>1 despite the fact that it only shows up during<br/>     2 the conduct period.<br/>     3 And if I wasn't clear about that,<br/>     4 feel free to ask me any follow-on, but I<br/>     5 didn't think the sentence as written here was<br/>     6 correct.</p> <p>7 There's a similar and related<br/>     8 issue in, I think it is Paragraph 193 where I<br/>     9 create the impression that Clemens is only<br/>     10 indirectly informing the conduct parameter in<br/>     11 the model without fixed effects, and it turns<br/>     12 out it's also indirectly informing the<br/>     13 conduct parameter even in the model with<br/>     14 defendant -- fixed effects.</p> <p>15 That's Paragraph 193. Let me just<br/>     16 double check. Yes.</p> <p>17 In the middle -- in the middle of<br/>     18 Paragraph 193 on Page 151, it says: However,<br/>     19 its conduct period data does contribute to<br/>     20 the conduct coefficient in Table 12, Model 1,<br/>     21 which does not use any fixed effects --<br/>     22 "effects" is misspelled. But it's -- more<br/>     23 importantly, it actually is informing the<br/>     24 conduct parameter indirectly in every model<br/>     25 in Table 12, including those that used</p> | <p>1 THE VIDEOGRAPHER: So if there<br/>     2 are no further questions, the time is<br/>     3 6:03 p.m. This concludes today's<br/>     4 deposition.<br/>     5 (Thereupon, the proceedings<br/>     6 concluded at 6:03 p.m.)</p> <p>7<br/>     8<br/>     9<br/>     10<br/>     11<br/>     12<br/>     13<br/>     14<br/>     15<br/>     16<br/>     17<br/>     18<br/>     19<br/>     20<br/>     21<br/>     22<br/>     23<br/>     24<br/>     25</p>   |
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| <p>1 defendant fixed effects.<br/>     2 And then, finally, in<br/>     3 Paragraph 175 is the last one. It's a small<br/>     4 one, but it's important. The last line of<br/>     5 175 reads: You know, which is consistent<br/>     6 with economic theory that predicts that a<br/>     7 hundred percent of marginal cost increases<br/>     8 would be passed through to end users, and I<br/>     9 should have said in a competitively supplied<br/>     10 industry.</p> <p>11 And, of course, the pass-through<br/>     12 rate is not a hundred percent in all cases.<br/>     13 So I left out an important caveat in that --<br/>     14 in that line.</p> <p>15 So those were -- those were things<br/>     16 that I just caught in my last read-through,<br/>     17 and, Mr. Coleman, if you wanted to ask me<br/>     18 follow-ons -- I realize I'm hitting you with<br/>     19 that now, but I didn't want to take away from<br/>     20 your time today.</p> <p>21 MR. COLEMAN: I don't have any<br/>     22 further questions about that.</p> <p>23 MR. RISSMAN: Okay. I think<br/>     24 we're done.</p> <p>25 We'll read and sign.</p>   | <p>1 CERTIFICATE OF REPORTER<br/>     2<br/>     3 UNITED STATES DISTRICT COURT )<br/>     4 DISTRICT OF MINNESOTA )<br/>     5<br/>     6 I, ERICA FIELD, Stenographic Reporter,<br/>     7 certify that I was authorized to and did<br/>     8 stenographically report the deposition of HAL<br/>     9 SINGER, pages 1 through 347; that a review of<br/>     10 the transcript was requested; and that the<br/>     11 transcript is a true and complete record of<br/>     12 my stenographic notes.<br/>     13 I further certify that I am not a<br/>     14 relative, employee, attorney, or counsel of<br/>     15 any of the parties, nor am I a relative or<br/>     16 employee of any of the parties' attorney or<br/>     17 counsel connected with the action, nor am I<br/>     18 financially interested in the action.<br/>     19<br/>     20 DATED this 28th day of June, 2022.<br/>     21<br/>     22 <br/>     23 Erica Field<br/>     24<br/>     25</p> |

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1 ERRATA SHEET

DO NOT WRITE ON TRANSCRIPT - ENTER CHANGES

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IN RE: Pork Antitrust Litigation

3 CASE NO. 0:18-CV-01776-JRT-HB

WITNESS: HAL SINGER

4 TAKEN: 06/24/2022

5 PAGE LINE CHANGE REASON FOR CHANGE

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23 Under penalties of perjury, I declare

that I have read the foregoing document and

that the facts stated in it are true.

25 \_\_\_\_\_

Date Hal Singer

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